

Appendix 8

Plan Summaries and Maps

(1)

(Note: the complete Plans of Operations are found in the project file)

Altona

Claim Description

The Altona plan consists of only one placer claim. It is located in Quartz Gulch approximately one mile west of its confluence with Olive Creek. Access is from the west by the unimproved forest road 1042-970. The legal description for the claim is T.10 S., R.35 E., Section 03, W.M.

Existing Condition

In the past, the area was hydraulically mined along Quartz Gulch and up a draw leading to the 970 road. Both sides of the creek are lined with old tailings and overgrown with willows and small trees. The stream and most of the riparian area is located on private land. The hydro-mined draw to the north of the creek, lacks the brush but is covered with 20 foot tall Douglas Fir and Ponderosa pine. The Pete Man Ditch crosses the western edge of the claim, and private land (owned by the claimant) abuts the south and east end of the claim.

The National Forest boundary is well marked along the creek and the adjacent private land. Access to the claim is by the 1042 -970 road which is classified as a level one road and is not maintained. A two track (old skid trail) takes off from the 970 road and ends at a 30 ft drop off on the edge of the previously hydro-mined draw. East of the site one can still find an unauthorized atv trail which supposable connects the site with the 1305-080 road and may be the road 1305-099,092, and/or 086 mentioned in the proposed plan. The claimant and I were unable to locate the adit during our field review (it may have collapsed and grown over).



Looking across hydro mined area

Recent Mining Activity

According to past inspections there has been no recent activity on this claim in the last 15 years.

Proposed Plan of Operations⁽¹⁾

The miner is proposing to placer mine the area along the north side of Quartz Gulch. Existing Forest System, decommissioned roads and temporary roads are proposed by the miner to access the claim from the 1305 road. Only one test hole (20' x 20' x 10' deep) will be open at a time in a 3-4 acre work. A miner-designated 20-foot undisturbed buffer will be maintained between the creek and the mining activity. Soil/material will be hauled to the processing site with a pickup. Water from the collapsed adit will be piped into two constructed ponds (10'x20'x10'deep) which will then be recycled during the gravity processing.

Equipment to be operated on the claims includes a backhoe, wash plant, trommel, pickup (to haul soil), travel trailer, water pump and hand tools.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers and out of the flood plain.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass



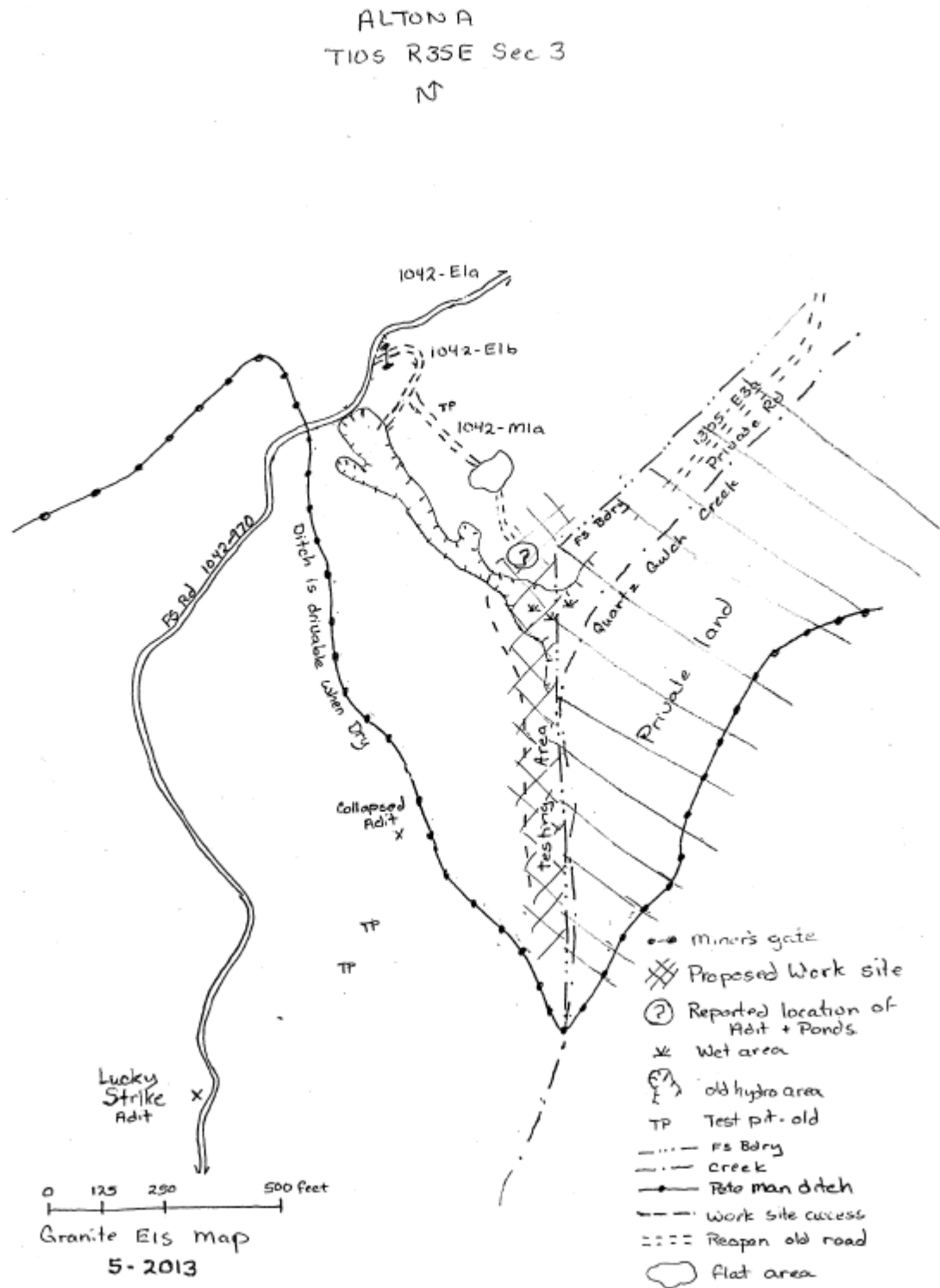
Looking down Quartz Gulch

seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Test holes will be filled in and ponds will be left dry during the winter. Road maintenance will include water barring and grass seeding. Final reclamation will remove equipment, re-slope and re-plant the area to the current densities and species.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks -120 days) for the next 10 years to complete the project. Working weekends, holidays and vacations, it is expected that the operation will only be able to work a few holes a year. As the miner has estimated 10 years for this work it is to be expected that ½ an acres per year will be worked/disturbed in order to work two holes.

Mitigation Measures identified by the miner in the Plan ⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).



BELVADEAR

Claim Description

The Belvadear plan consist of 4 placer claims located along Olive Creek about 3 miles south of it confluence with Clear Creek. The legal location is T.9S, R.35E, Section 35 WM

Existing Condition

Forest road 1305-080 access the claim from the east side of Olive Creek. Historical placer mining activities appear to have involved dredging the creek bottom which has left dredge tailings for more than 100' along both side of the creek.

There is a small outhouse on the north end of the claim. The active work is on the south end of the claim where the road and the creek cross. This is also where the spring feed pond is located. The proposed work area is located just north of the current work area and consists of old dredge tailings, small ponds of water, brush and a few, 15 to 20 foot tall lodgepole pines.



Ponds and processing area

Recent Activity

The claimant has been workings material which was stockpiled at the processing site throughout the summers under a Notice of Intent.

Proposed Plan of Operations ⁽¹⁾

The owners will continue to work the ten acre project area along Olive Creek. Excavations will be 4-10 feet deep. A miner designated 20 ft no disturbance buffer will be maintained between the test holes and the stream. Topsoil will be stockpiled and used later for reclamation. The processing site will be at the junction of Olive Creek and the 1300-080 road on the east side of the creek. Wash water for the trommel will be pumped from the spring and Olive Creek (under an old water right). The water will be re-circulated through a shallow pond (20' x 30' 5' deep) excavated in dredge tailings gravels. Mineral processing will be done by gravity and no chemicals will be used. The tailings will be returned to the hole once it is mined and excess tailings could be used on the road.

Equipment to be used will include a small backhoe, trommel, dump truck, high-banker, gold spinner, and hand tools.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers

Reclamation will be done on a continuing basis and the site stabilized annually before close out and re-contouring the worked sites to match the surrounding area. Grass seeding and fertilization will be done as



Old tailing area below pond

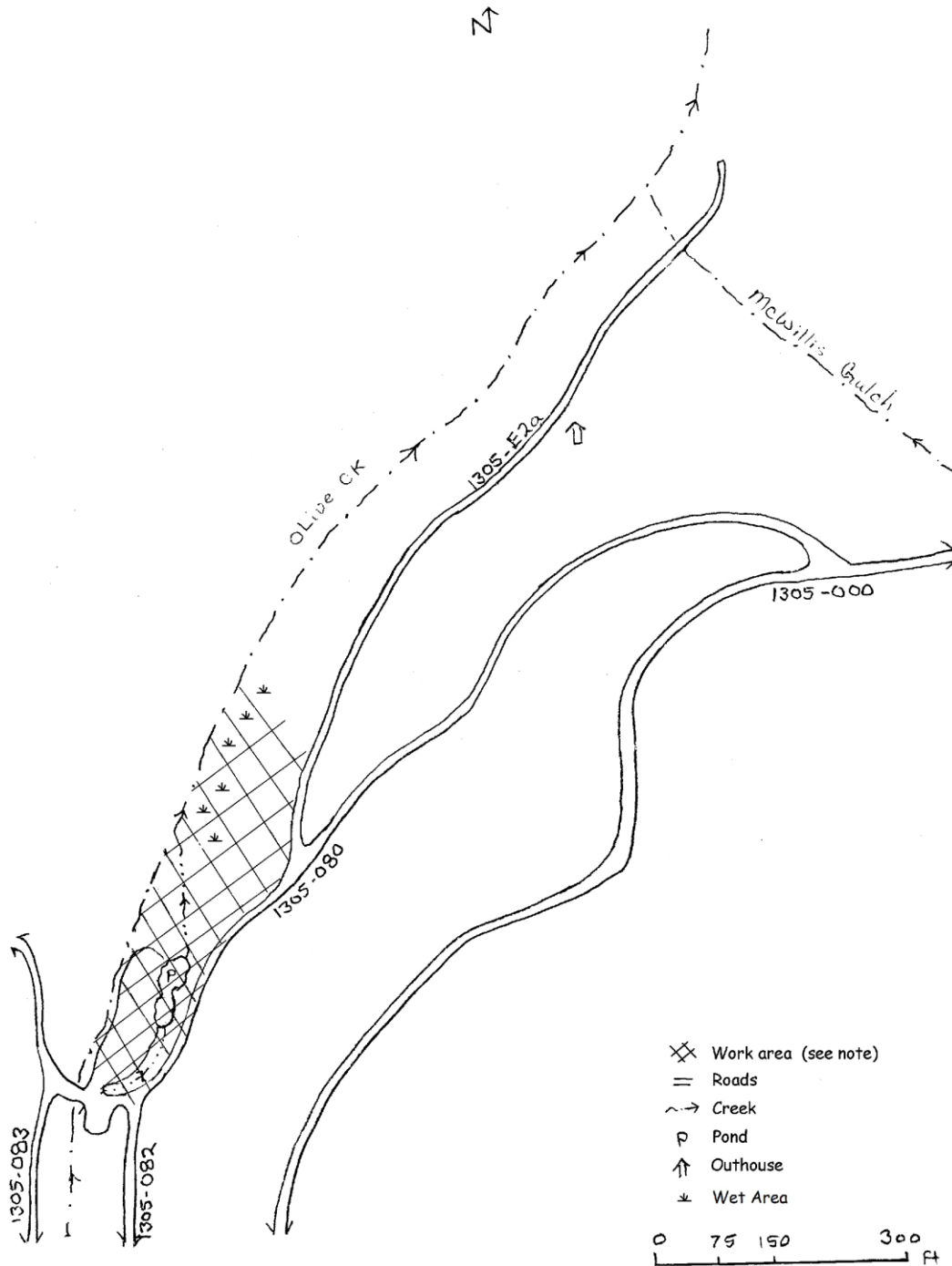
needed. On final reclamation the temporary access road will be water barred and closed. All machinery and mining related debris will be removed.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. The pond and associated processing area takes up about $\frac{1}{2}$ acre leaving about $2\frac{1}{2}$ acres to be worked in $\frac{1}{4}$ acres chunks at $\frac{1}{4}$ acre per year the operation should be done in 10 years.

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾

Belvadear

T 10 S R 35 E sec 2



Note: Plan talks about mining in the 10 acre area but also does not plan to remove trees providing shade to the creek. This leaves the area above.

Granite EIS Map
5 - 2013

BLUE SKY - BULL RUN

Claim Description

The Blue Sky Bull Run placer claim is located along Bull Run between 3 and 5 miles from the confluence of Bull Run with Granite creek. Access is by the paved Forest System road 7300. The legal locations are T.8S, R.36E, Section 19 and T.9S, R.35½E, Section 18&13 WM.

Existing Condition

The northern portion of the claim is referred to as Blue Sky. The claim is on the west side of the creek and is accessed by crossing Bull Run Creek in various locations.

Historically the area placer mined and dredged which has left tailing piles and old ponds along both sides of the creek. The main access to this area fords the creek and uses a highly used dispersed camping area as the main campsite for the claimant.

Swamp creek as well as Bull Run Creek have been channelized and show signs of past dredging.

The southern portion of the Bull Run claim is located up-stream from what was an old dredge dam. The past sediment from the dredging operations appears to have contributed to the development of the meadow just north of the proposed work site. The proposed work area is located on the west side of the creek and can also partially access from Forest Service road 7375.

Recent Activity

The claimants are able to access the claim throughout the summer months. Current mining activities are limited to panning by hand and small motorized equipment at the creek near the dispersed campsite. I would estimate that only a yard or so of material have been processed per year during the last 5 -10 years.

Proposed Plan of Operations ⁽¹⁾

The miner plans to conduct placer mining at 6 locations (4-Blue Sky, 2-Bull Run). Test holes will be a max of 11 feet deep. Only one test hole at a time will be open. Test holes will be a max of 12 feet deep.

A processing site will be set up and used at an existing off channel dredge pond will be recycled.

A temporary bridge is proposed over Bull Run Creek in order to access at Bull Run - site 2, while the an existing ford on Bull Run will be used to access Blue Sky – sites 1-3 and the claims only processing site.

A vegetative buffer of 30 feet will be maintained between Bull Run creek and any mining and the processing site will be 50 feet from Bull Run Creek.



Bull Run Site 1



Blue Sky –Swamp Creek

Equipment to be used will include a small backhoe, smaller suction dredge, washing plant, highbanker, water pumps, drill, and hand tools (pick and shovel). Structures on site will consist of self-contained travel trailers and a chemical toilet that will be brought in seasonally.

The miner will also operate a small suction dredge under the terms and conditions of a State dredging permit from July 15 to August 15.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Topsoil will be stockpiled and used later for reclamation. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. All equipment will be removed from the site at season's end

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. The miner is proposing to haul up to 5 cubic yards (5 trips in a pickup) of material per day for processing. Assuming that only the bottom yard would be processed and with one 1/10 of an acres dug each year, that would result in 46 cubic yards to process and result in 46 loads a year. At 5 loads per week, that would take about 9 weeks to process each year.



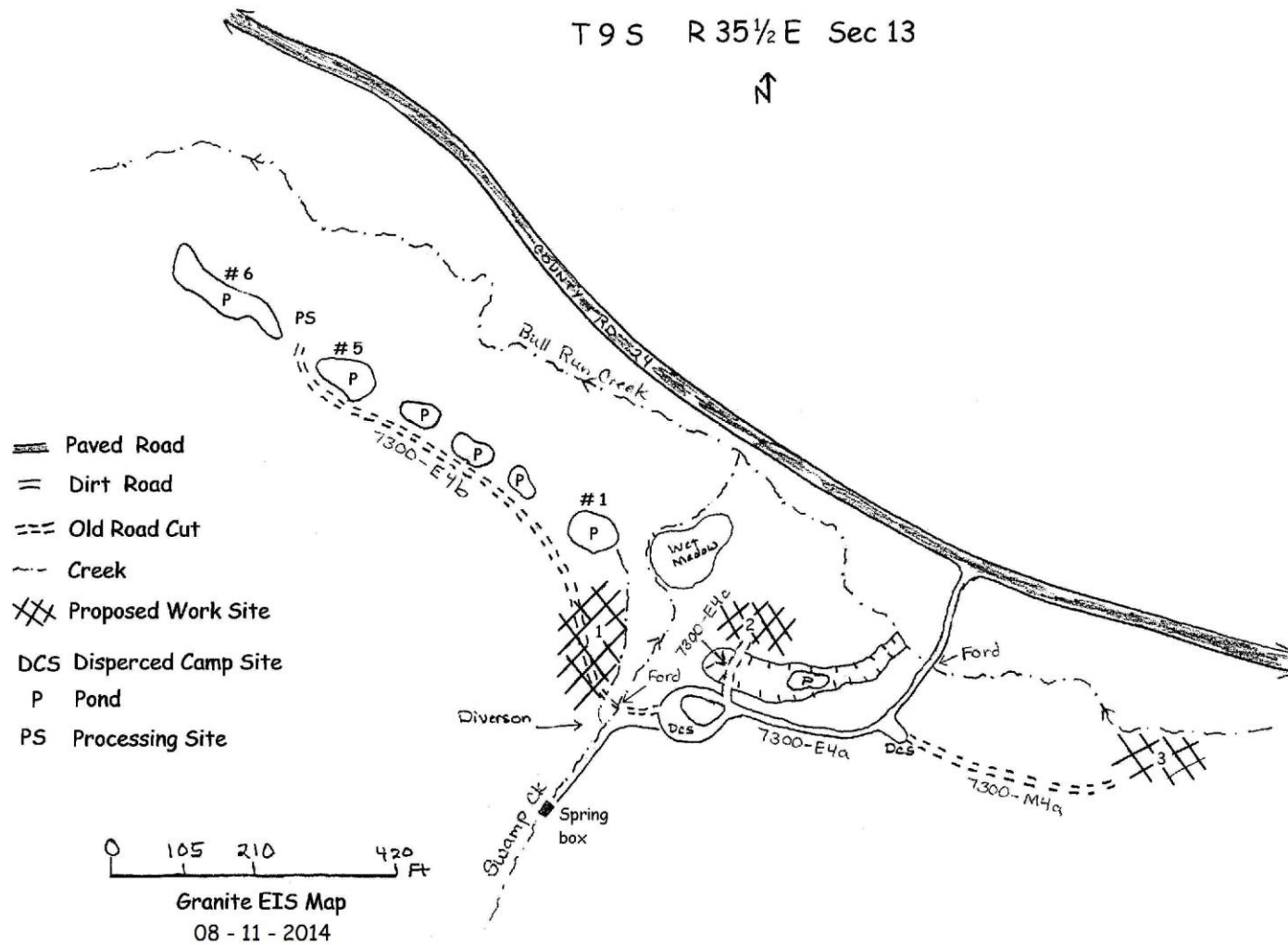
Mitigation Measures identified by the miner in the Plan ⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).

Blue Sky - Bull Run (1 of 3)

Blue Sky Sites 1, 2, 3

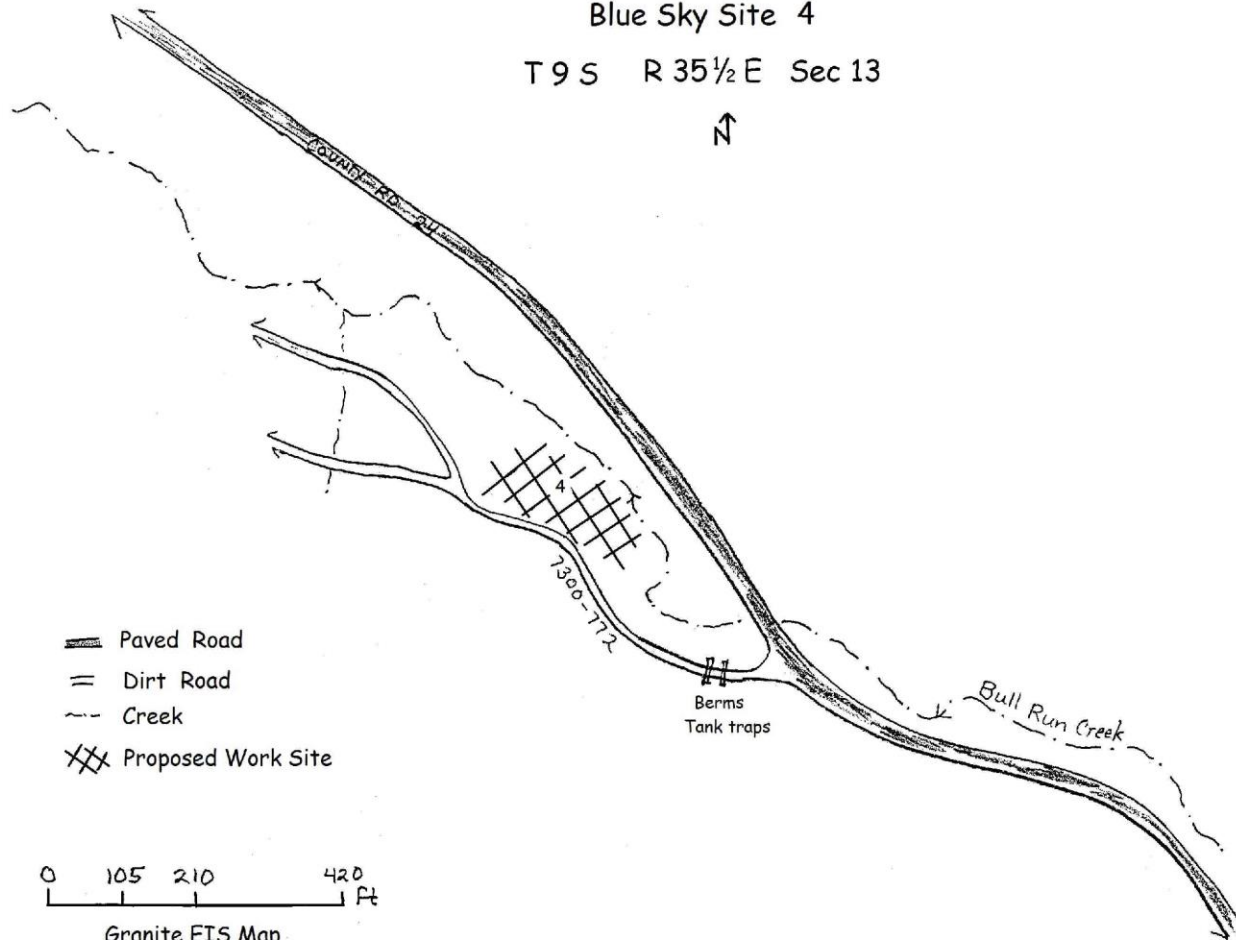
T 9 S R 35½ E Sec 13



Blue Sky - Bull Run (2 of 3)

Blue Sky Site 4

T 9 S R 35½ E Sec 13



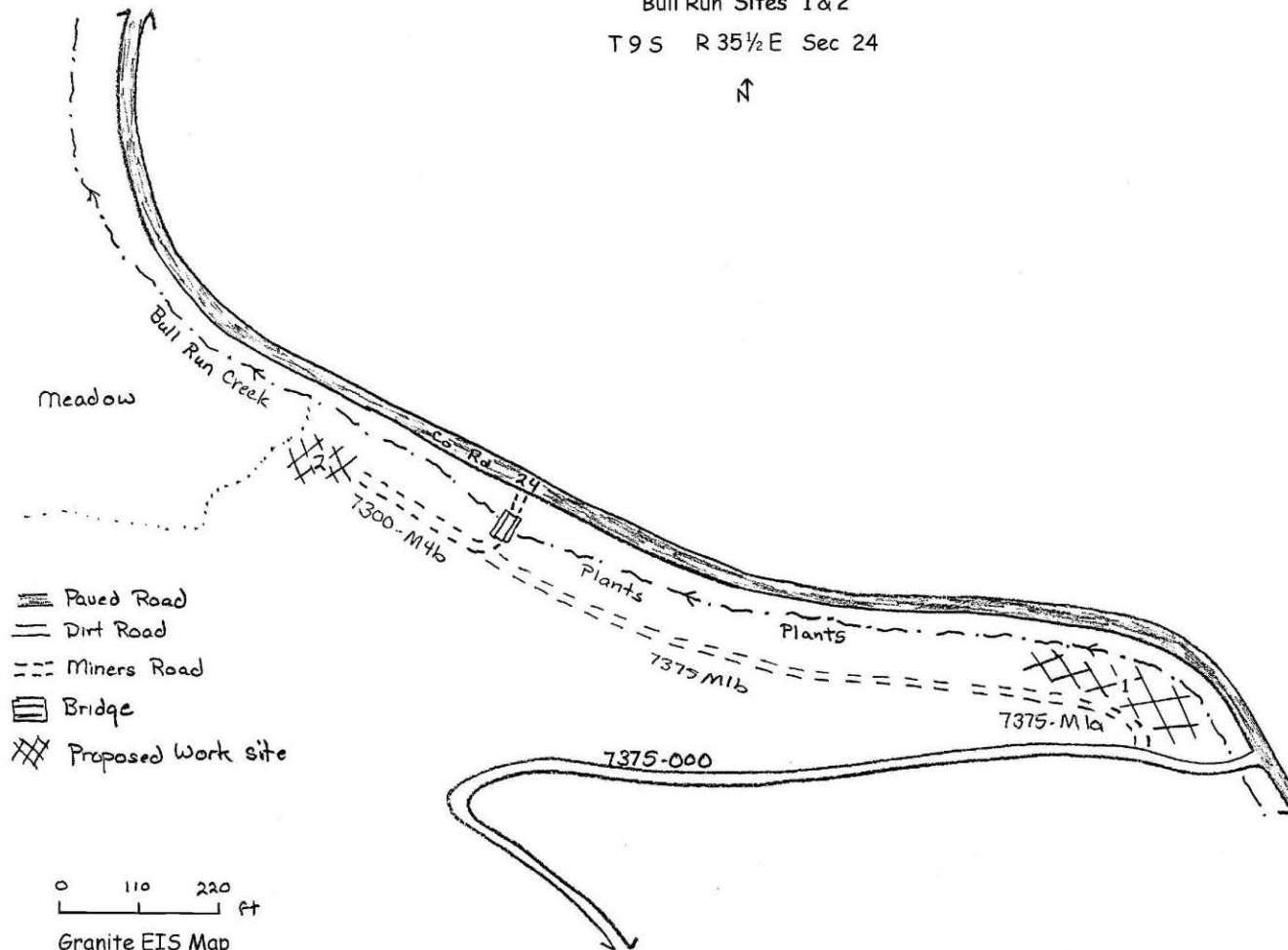
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Granite EIS Map
08 - 11 - 2014

Blue Sky - Bull Run (3 of 3)

Bull Run Sites 1 & 2

T 9 S R 35½ E Sec 24



0 110 220 ft

Granite EIS Map
08 - 11 - 2014

Blue Smoke

Claim Description

The Blue Smoke plan consists of only one claim located north of county road 24. Granite Creek flows in a westerly direction on the southern edge of the claim and is approximately ¼ mile west of its confluence with Bull Run Creek. Access is by the paved county road 24 and the powerline access road. The legal description for the claim is T.9 S., R.35 ½ E., Section 04, W.M.



Processing Site

Existing Condition

Mining began in this area in 1861. In the early 1900's the flood plains along Granite Creek were dredged for the first time and was last dredged in the 1940-50's. Placer mining continues today as people continue to search through the rocks and stream bed. The dredge tailings north of the paved road and south of the powerline road contain isolated ponds that may or may not be connected underground to each other and/or Granite Creek.

Short lodge pole pines (15-20 foot tall), scrub willow and native grasses have taken hold on the dredge tailings. The high bank area to the north is undisturbed from past mining and contains larger trees. The ponds are filled with hydrophytic plants such as sedges (*Carex*), cattails (*Typha*), and duckweed (*Lemna*).

Private land lays on the east and north side of the claim and is not well marked. The powerline runs the entire length of the work area, between the access road and the ponds used in the operation.

Recent Activity

The claimant did some testing of the dirt located at the proposed processing site, under a Notice of Intent in 2012 and 2011. There are no buildings or equipment on the claim. The piles of dirt at the processing site was there previous to the claimant's location of the claim.

Proposed Plan of Operations⁽¹⁾

The miner would like to placer mine in 3 sites along the high bank (road cut bank) north of the existing powerline road. Excavations will be 20' x 25' x 10' deep at a time with each one reclaimed before moving on to the next. The dirt road acts as a boundary and buffer between the water and the active mining site, so no buffer was identified by the miner.

Water for processing will be pumped from an existing dredge pond (#2). An existing dry pond will be expanded and used as a settling pond with a grass area and pond (#3) to be used in case of overflow.

Equipment to be operated on the claims includes a backhoe and/or dozer, small trommel, highbanker/slucice, 5 yard dump truck, generator, a pickup truck, water pump, atv, and hand tools.

The miner will also operate a small suction dredge under the terms and conditions of a State dredging permit from July 15 to August 15.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out each fall. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks – 120 days) for the next 10 years to complete the project. Initially one or two holes will be dug in each of the three areas. Should sufficient minerals resources be located then the area will be dug as planned. Base on the hole size (20 x 25 x 10 ft deep) and the area to be mined it is estimated that approximately 9 holes a year will be dug. An estimated 150 to 500 cubic yards could be processed a year. This could easily be done in 10 years.

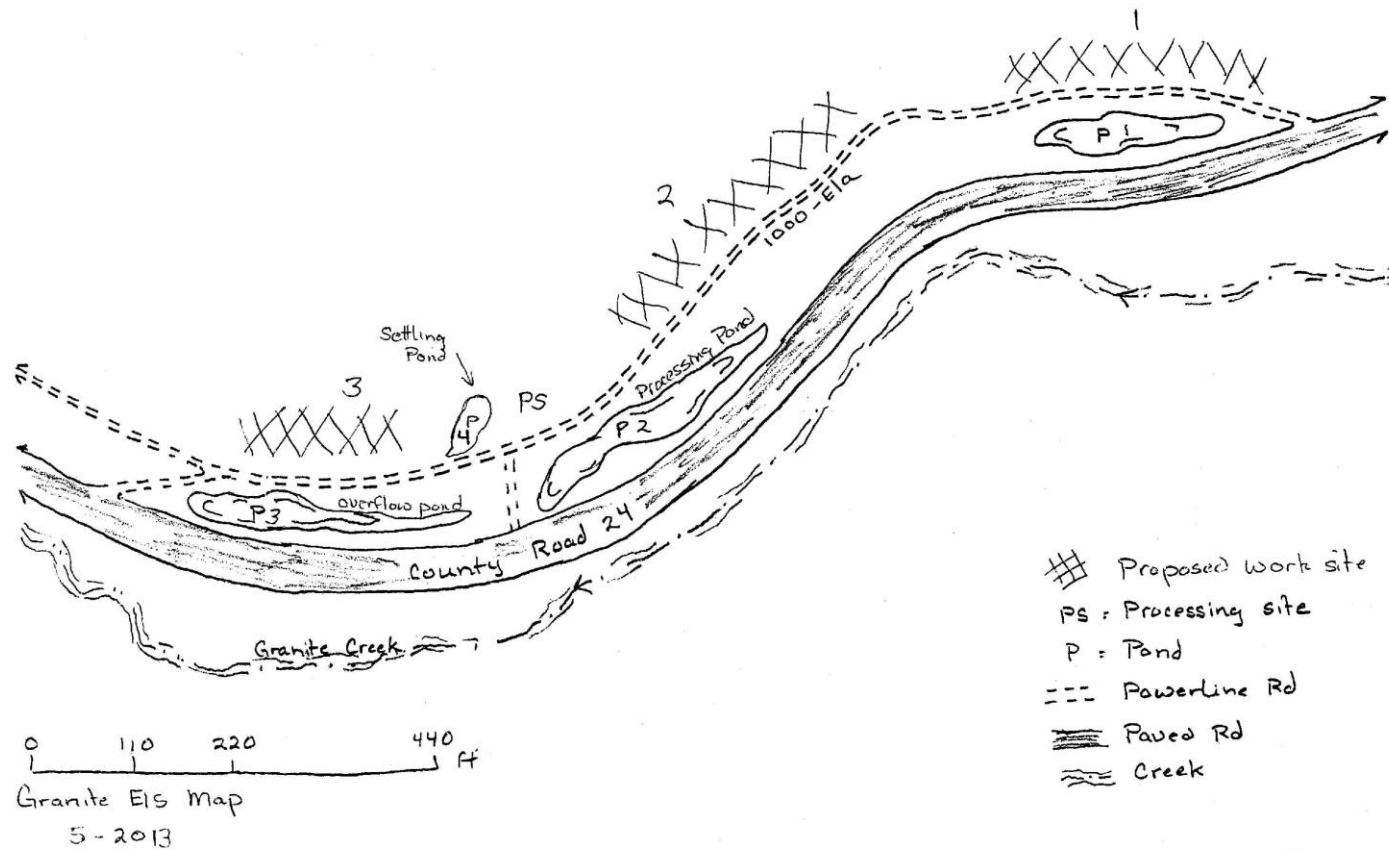


Site 2

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾

Blue Smoke

T 9 S R 35 ½ E Sec 4



BUNCH BUCKET #1 AND #2**Claim Description**

The Bunch Bucket plan consist of 2 placer claims located along the north east side of Clear Creek, at either side of its confluence with Ruby Creek and approximately 2 miles east of its confluence Olive Creek. Access is by existing Forest System Road 1310. The legal description for the claim is T.9S., R.35E., Section 22, W.M.



Pond location at site 2

Existing Condition

Site 2 is located between Forest System Road 1310 and Clear Creek. A large portion of the area was cleared in the 1970's but has since grown back with 15' tall lodgepole. Tailing piles from past dredging activities exist along both sides of the creek. An approximately 50 to 80-foot wide zone of native vegetation buffers the cleared area from Clear Creek along with an existing non-system road (1310-E2c). A previously dug pond site is now dry.

Site 1 is located along the east side of Forest System road 1310 and is a flat terrace on which a few trees have been left (15, tall lodgepole pine and occasional larger ponderosa pine or Douglas fir). The site is buffered from the creek by a 50-80 foot vegetative area and the 1310 road.

Recent Activity

According to past inspections there has been no activity on this claim in the last 10 years. An abandon trommel and 3 pickup loads of household trash have been removed since 2010.

Proposed Plan of Operations ⁽¹⁾

The miner is proposing to placer mine two sites by excavating 4 trenches at each site. The trenches (2' wide and 8' deep) will be excavated to bedrock using a backhoe, and will be situated in such a manner as to spare the larger trees in the area. Overburden and/or topsoil will be stockpiled along the trenches for later use in reclamation. Excavated materials will be trucked to the trommel, which will be set up on the southeast side of Bunch Bucket #2, approximately 150 to 200 feet south of Clear Creek. A two track road and an 50 foot plus undisturbed area, will buffer the dig site from the creek.

An existing pond will be expanded (30'x60'x10 deep) to secure a dependable water source and all water will be recycled. The claimant proposes to place log dams across a seasonal stream that drains the site to minimize the amount of sediment that might otherwise wash into Clear Creek.

Equipment to be operated on the claim include a medium size backhoe, pickup, atv, water pump and a trommel capable of washing up to 30 cubic yards per hour will be used. No structures are planned.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Washed gravels will be used as backfill in the trenches. Grass seeding will be done as needed and topsoil will be stockpiled for use in final reclamation. All garbage will be hauled off site for disposal.

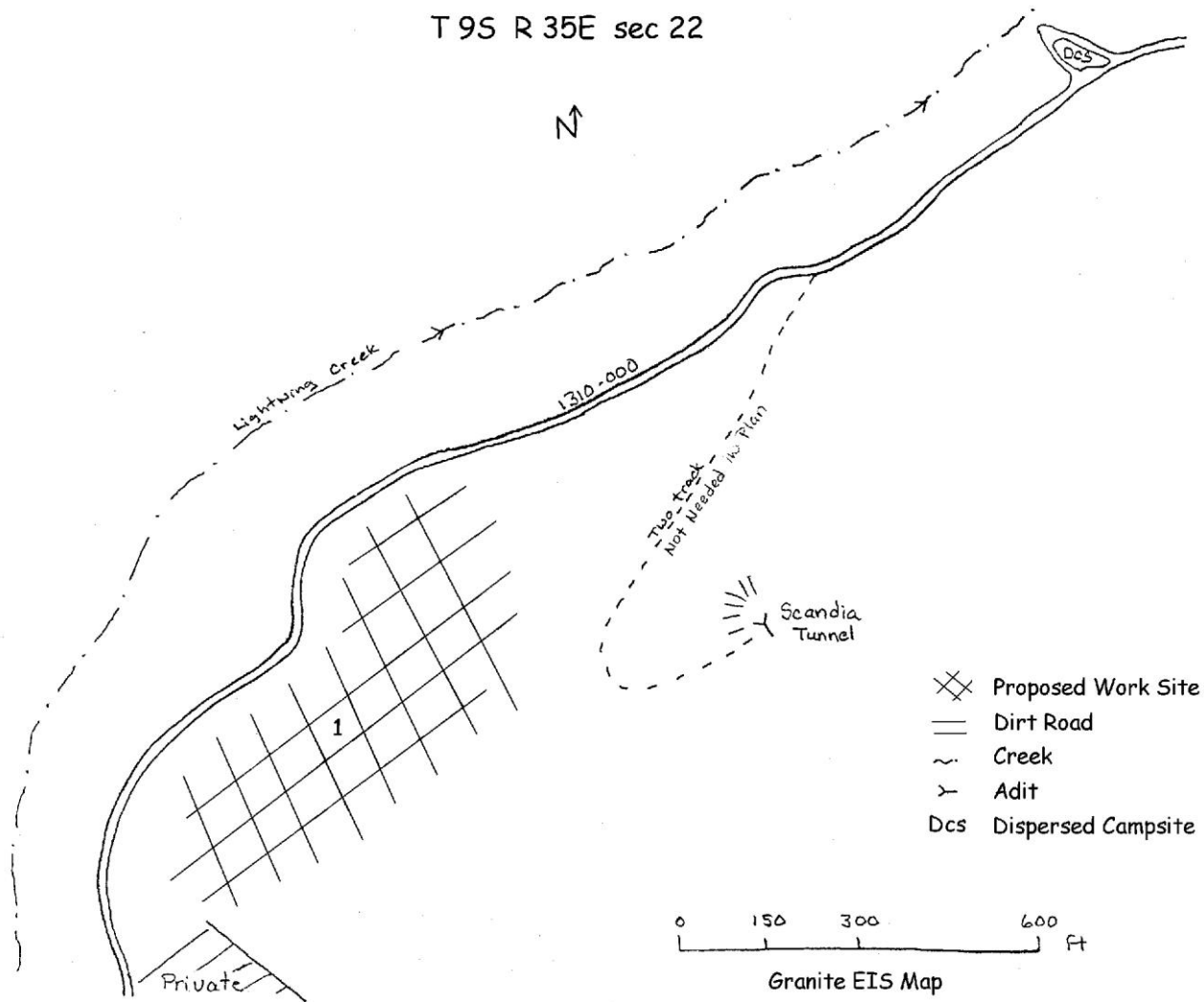
This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks - 120 days) for the next 10 years to complete the project. Based on his trench size (2x8x200) it is estimated that the digging of each trench will move 120 cubic yards and the bottom 3 feet would give 45 cubic yards to process. The plan is to process 600 cubic yards the first year, and at that rate, the operation could be finished in 2 years and process all of the material.

No mitigation measures were identified by the miner in the Plan. ⁽¹⁾

Bunch Bucket

(1 of 2)

T 9S R 35E sec 22



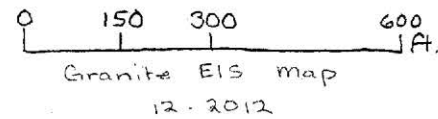
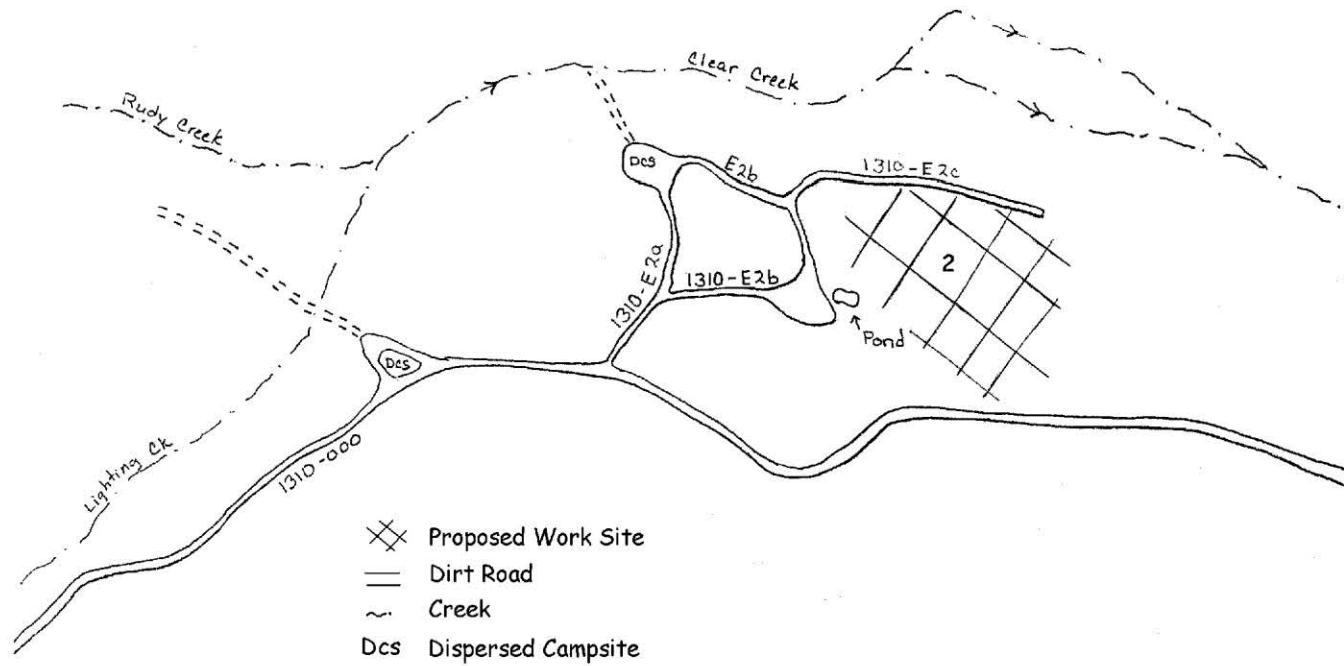
Granite EIS Map

12 - 2012

Bunch Bucket

(2 of 2)

T 9S R 35E sec 22



City limits

Claim Description

The City Limits plan consists of only one claim. It is located just north of the town of Granite on the east side of paved Forest System road 7300, across the road from Granite creek and approximately ½ mile north of its confluence with Bull Run. Access is from Forest System road 7300. The legal description for the claim is T09 S., R.35½ E., Section 04, W.M.



Side road east of ponds

Existing Condition

Mining began in this area in 1861. In the early 1900's the flood plains along Granite Creek were dredged for the first time and was last dredged in the 1940-50's. Placer mining continues today as people continue to search through the rocks and stream bed. The dredge tailings in this area contain isolated ponds that may or may not be connected underground. The north end of the claim is located over an active gravel pit in which county and city processed gravel has been stored. Non-system gravel roads run between the ponds and the hill side to the east.

Short lodge pole pines (15-20 foot tall), scrub willow and native grasses have taken hold on the dredge tailings. The hill side to the east is undisturbed from past mining and contains larger trees before crossing over into the city limits. The existing ponds are filled with hydrophytic plants such as sedges (*Carex*), cattails (*Typha*), and duckweed (*Lemna*).

The National Forest boundary has been well marked along the private land on the south and east side of the claim and the town of Granite.

Recent Activity

There has been no recent mining activity documented on this claim in the last 10 years.

Proposed Plan of Operations ⁽¹⁾

The miner would like to placer mine the old tailings and the high bank (hill side) along the east side of the claim. The proposal is to process approximately 3-5 yards a day from a series of pits (20' x 30' x 8' deep) dug along the east side of the claim. There is no stream on the claim so there is no miner-designated stream side buffer.

Processing water (20-80gpm) will come from and be recycled in the old dredge ponds (1200-4800 gallons per hour).

Equipment to be operated on the claims includes a backhoe, bobcat, 5 yard dump truck, Highbanker, washing plant, sluice, water pumps, pickup, and hand tools. Only travel trailers and a chemical outhouse are planned to be used while mining.



Old dredge pond in dredge tailings

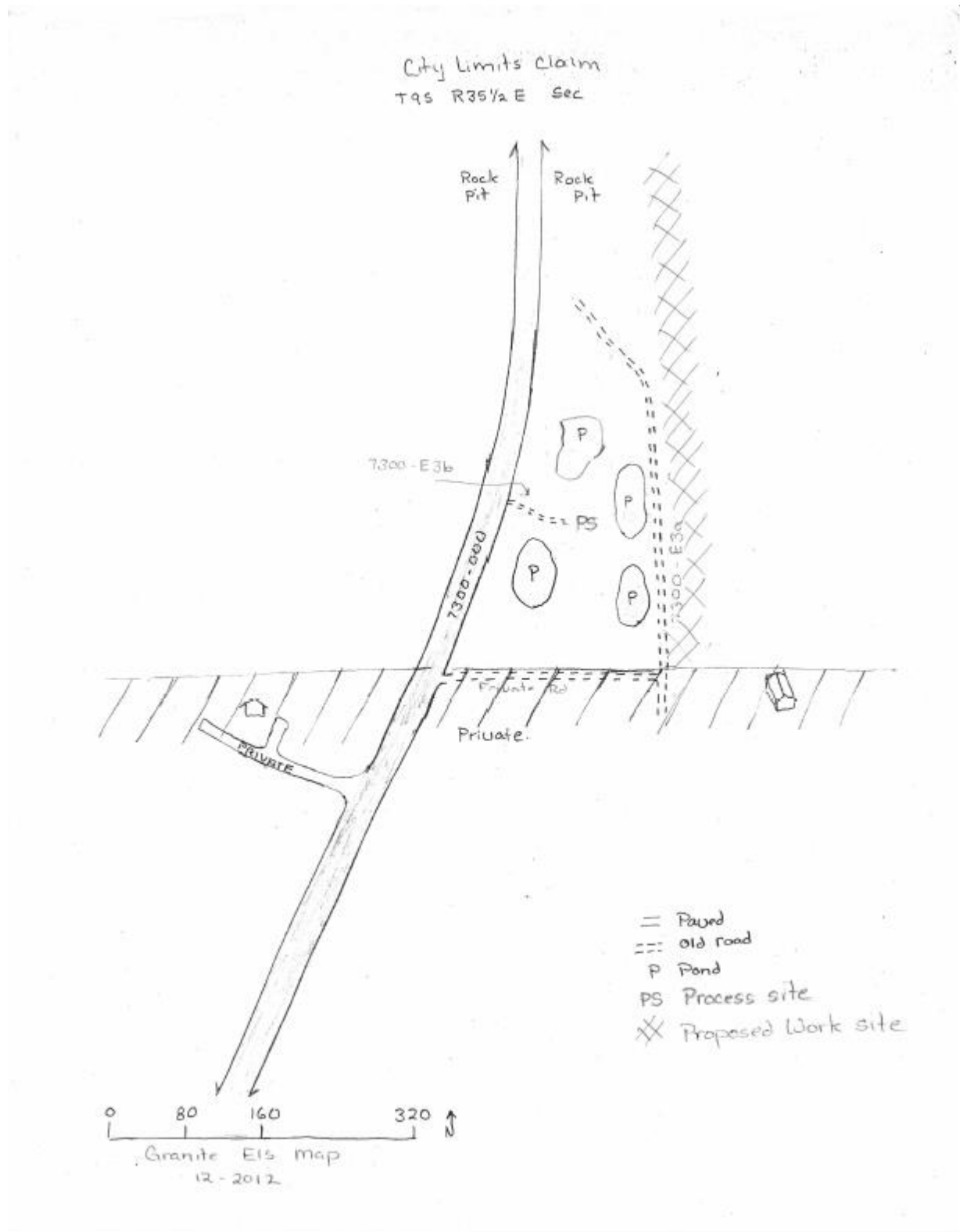
Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Ponds will be left for wildlife use.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20 weeks - 120 days) for the next 10 years. Assuming that only the lower section of the pit is processed ($1/3 = 60$ cubic yards or less) a rate of 2-3 yards per day would take 20-30 days to work. This would result in about

one pit per month or 5 pits a year (less than $1/4$ acre). The area described for mining is approximately $1/2$ to 1 acre in size and could be completely excavated by 36-72 holes. Over a ten year period that would mean the miner would need to excavate 4-7 pits a year.

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾



East Ten Cent Claim

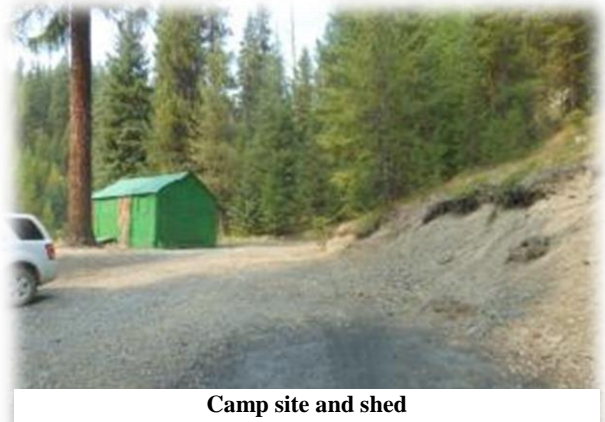
Claim Description

The East Ten Cent plan consists of two claims. It is located on East Ten Cent Creek which flows into Granite Creek approximately 2 mile to the west. Access is by Forest Road 7550-050 and a miner created road up the east side of the creek. The legal description for the claim is T.8 S., R.35½ E., Section 28, W.M.

Existing Condition

The hydraulically mining began in this area in the late 1800's. Then again in the 1970's the west side of the creek was mined and then reclaimed in the 1980's. The creek and both banks are lined with old tailings from past operations.

The area identified for mining under this plan is located on the west bank of the creek and consist of a cut bank with a few fir and lodge pole trees (10-50 foot tall) and a grassy area resulting from rehabilitation from a previous mining operation. The existing miner's pond (12' diameter) is located on the north end of the west bank and is filled with hydrophytic plants such as sedges (*Carex*), and cattails (*Typha*). The campsite is located on the east side of the creek at the end of the road in an excavated, flat area.



Camp site and shed

Recent Activity

Throughout the last 10 years the claim has changed hands several times. Mining activity has been limited to panning and occasionally a highbanker. Some cleanup and removal of non-essential mining items has been done.



Creek and pond area

Proposed Plan of Operations⁽¹⁾

The miner would like to placer mine along the west side of the creek. Test pits (12 ft in diameter) will be opened in the area between the creek and an old access road. An approximately 10 foot undisturbed stream side buffer will be retained between the break in slope at the edge of the work site and the creek below.

An existing pond will be used for processing and settling (12' diameter -6' deep).

Equipment to be operated on the claims includes a backhoe, trommel, a pickup truck, highbanker, water pumps, ATV and hand tools. During the mining operations a self-contained travel trailer will be used

for sleeping quarters. The miner plans to continue using the shed for storage as well as the existing outhouse.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers. Approximately 20 gal will be kept in a locked metal box in the storage shed.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Road maintenance (water-barred and cleared) will be accomplished annually on the one mile of road needed to access the claim. For final reclamation, the two structures will be removed and the un-named (7350-M1a) access road will be ripped, seeded and covered with adjacent brush.

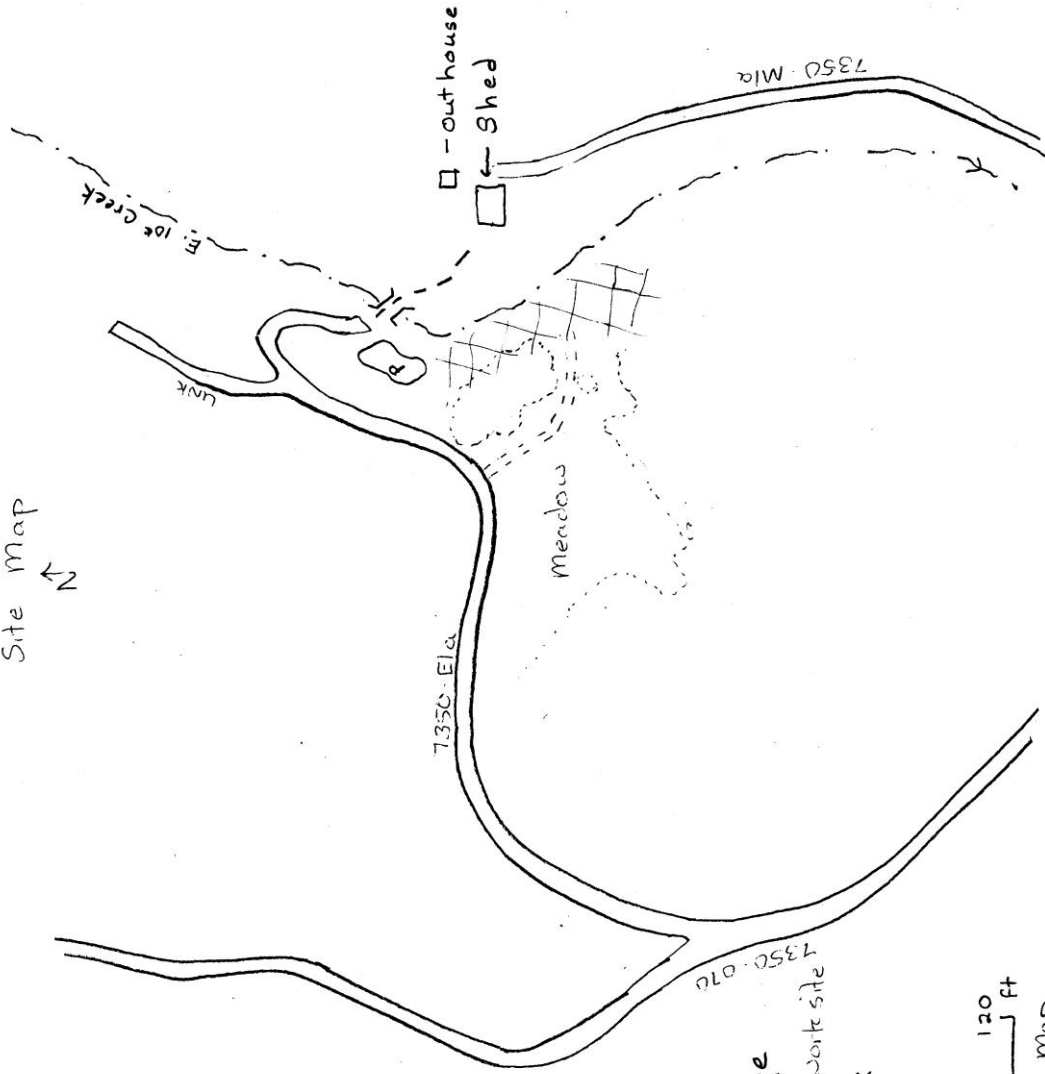
This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks – 120 days) for the next 10 years. The excavation area is estimated at 80'x100' (less than ¼ acre) and it would take about 70 (12' diameter) holes to completely excavate the site. At 7 holes a year, the site would be completely excavated in 10 years. The pond is estimated at 4-5,000 gallons

No mitigation measures were identified by the miner in the Plan. ⁽¹⁾

East Ten Cent Creek

T8S R35½E Sec

Site Map



= Dirt Rd

- - - Creek

~ tree line

P Pond

||| ATV bridge

Proposed Work site

= Two track

0 30 60 120 ft

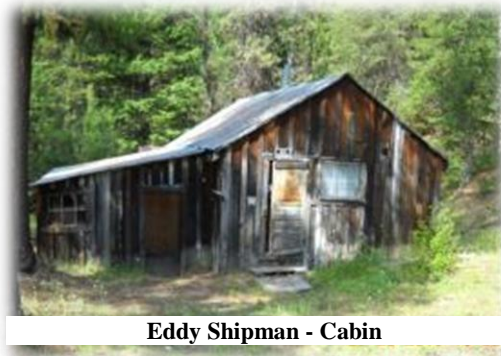
Granite EIS Map

5-2013

Eddy Shipman

Claim Description

The Eddy-Shipman plan consists of 3 lode claims. It is located at the junction of Chipman Creek and Granite Creek. Access is by Forest System road 7300 and a closed non-system roads. The legal description for the claim is T7S, R35½ E, Section 23 WM.



Eddy Shipman - Cabin

Existing Condition

Mining began in this area in the late 1800's. The creek appears to have been dredged, but based on the location, it is more likely just the results of intensive hydraulic and hand mining. The surrounding draws are full of adits that were also created in the late 1800's and worked as late as the 1980's. Concerns have been voiced regarding the potential for acid mine drainage and soil contamination based on independent sampling in the area. A non-system road (reportable the old county road) runs along the west side of Granite Creek and is used to access the cabin, placer site and two of the old

collapsed adits (B&C). The area is covered with trees in a variety of types and sizes. The relocation of the county road (possible in the 70's) cut through several adits just north of the claim area and used the old tailings and waste rock to fill in the present crossing over Granite Creek which divides the proposal into the east and west portions.

The adits on the west side of the road (B&C) appear to be the old East Eddy adits. While they are both collapsed, adit C portal was replaced with 4 wide culvert and gated when the 7300 road was relocated.

The collapsed adit (A) is on the east side of the 73 road and is part of the old Central mine. It is currently accessed by a foot trail or the 7300-680 road which fords Granite Creek and is also gated. An Engineering Evaluation /Cost Assessment (EE/CA) has been completed for this adit as part of the final evaluation in the CERCLA process. The findings showed that metal concentration were near clean-up level in waste rock, tailings and soil. The recommendation is for on-site containment which would consist of containing, covering and replanting the sites.

Recent Mining Activity

The claimant currently uses the small cabin an associated shop/garage and outhouse along Granite Creek. Over the last 10 years, the claimant has been rebuilding the portal on adit (A) and conducting small scale prospecting by hand along Chipman Creek. The small amount of prospecting that has been done over the past 10 years is equivalent to natural bank erosion and the portal still remains caved in.



Collapsed Adit B

Proposed Plan of Operations ⁽¹⁾

This is listed as an ongoing operation. The claimant would like to reopen the existing adits and conduct placer operations.

For the lode operations, locally available wood will be used to reconstruct the portals and for mine timbers. Work inside the adit will consist of using a bobcat or mucker and explosives to rehabilitate the adit and continue mining underground. A temporary cement mill base will be brought in and a temporary corral constructed. It is estimated that up to 5 tons per day will be crushed and milled using a portable horse

powered arrastra at a site near the cabin. Chipman creek will be used in this process. During the testing phase, a few dump truck loads may be hauled off site to private land using Forest Service Road 7300.

Tailings will be re-deposited underground.

Placer operations will take place in the draw along Chipman Creek as well as the rock surface where the vein shows through and the old mine dumps. A trammel or small washing plan and backhoe will be used. Process water from Chipman Creek or off-channel ponds will be placed in existing ponds and recycled. Top soil will be stockpiled for later reclamation and the miner will maintain an undisturbed buffer of at least 20 ft between the creek and the mining activity. It is estimated that the placer depth will be no more than 6 feet. If trees need to be removed, these will be placed along the gulch to prevent head-cutting. If the brush is removed, it will be planted back after the mining is completed.

Equipment will be washed before it is taken onto the National Forest and commercial hay pellets and weed free hay will be used to feed the horse.

At present, petroleum products will be stored in vehicles in approve containers, and removed from the site at season's end. If storage is needed, a lined containment vat sufficient to hold the entire contents of the barrel will be used and stored near the cabin site.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Portals will be stabilized and safe. Trailers will be removed seasonally. Final reclamation will include re-countering mine dumps, closing shafts and portals, and planting. The old county road will be closed with a rock berm and all buildings and equipment will be removed.

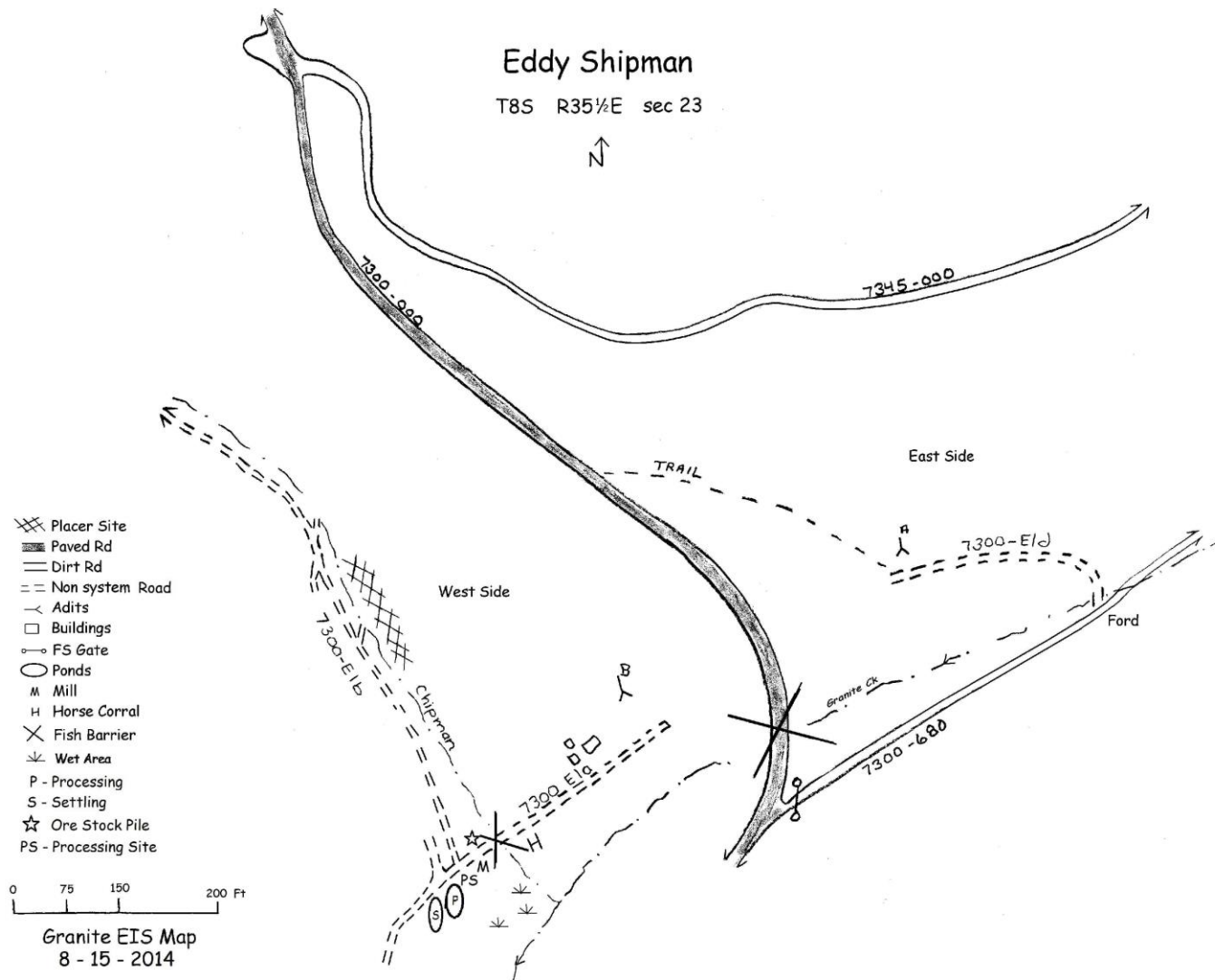


Collapsed Adit A

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work year around in the adit but due to the snow it is expected that most of the outside work will occur from June through October of each year (20 weeks -120 days) for the next 10 years to complete the project. However, the extent and duration of the operation will be based on the use of the setting pond and lack of waste rock and tailing disposal sites. The miner has predicted a maximum processing rate of 5 tons (@ 5 cubic yards a day). It is estimated that with the settling pond (50x100x8 feet in depth) would hold 500 cubic yards or 98,100 gallons of water. This would mean that every 100 days, or once a year the settling pond would have to be cleaned and the sludge put back in the mine. The existing waste rock and tailing piles previously used (Adit A, and across from the pond) are very limited and will only hold a few more loads (10-20 cubic yards). The lack of waste rock and tailing dumpsites will limit the expected operation to basically a testing operation with an expected duration of one season. Should the testing on the adit prove profitable, it is expected that a modification to the plan would be submitted to the Forest Service for further evaluation and analysis, and that this modification would have engineer designed for the waste rock disposal sites and address any other concerns discovered once the initial testing on the adit is done.

Mitigation Measures identified by the miner in the Plan ⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).



Grubstake

Claim Description

The Grubstake plan consists of only one placer claim. It is located on the west side of Clear Creek at its confluence with Beaver Creek. Access is from a miner created road, ford and bridge that ties back to County Road 24. The legal description for the claim is T.09 S., R.35 E., Section 04, W.M.



Bridge

Existing Condition

The claim is near the historical site of the town of Alamo and the Eureka mine. Over the past 100 years, the area along the creek has been dredged and numerous ditches point to hydraulic mining along the stream banks. Improvements on the claim include one equipment storage building and a bridge over Clear Creek. An open pit (30x20 deep) is located over 100 feet from the creek and up on the flat. A washing plant, set up near the pit consists of a screen, a trommel, and a sluice box which has not been used in some time. Over the last 10 years the Forest Service in conjunction with Grant Co and other parties, have stated restoration of the bare dredge tailings and the two creeks in the area. Private land abuts the south end of the claim and has been clearly marked with forest boundary signs. The road into the claim is a non-system road and is not suitable for public use due to the miner constructed bridge.

Recent Mining Activity

The claimant began replacing the deck and stringers on his access bridge in 2011. A safety fence has been placed around the existing mining hole (30 ft by 20 ft deep) and a ford crossing over clear creek was improved near the existing shed. There has been no visible mining activity on this claim in at least the last 10 years.



Site B and Camping Site

Proposed Plan of Operations⁽¹⁾

The miner is proposing to continue mining on the east side of Clear Creek. Two sites have been selected for further testing. Site A is currently open (20' across x 30' deep) and will also serve as a processing and settling pond. The existing hole may be deepened and a ramp added to the north side. A new excavation (20' across x 12' deep) is proposed on site B.

The miner will maintain an undisturbed 20 foot buffer between the creek and the mining activities. This buffer will be maintained and defined by a placement of a gravel berm and straw bales. The processing from the

excavation at site a (ground water pond) will be recycled as it is also the settling pond. The material from Site B will be processed at site A.

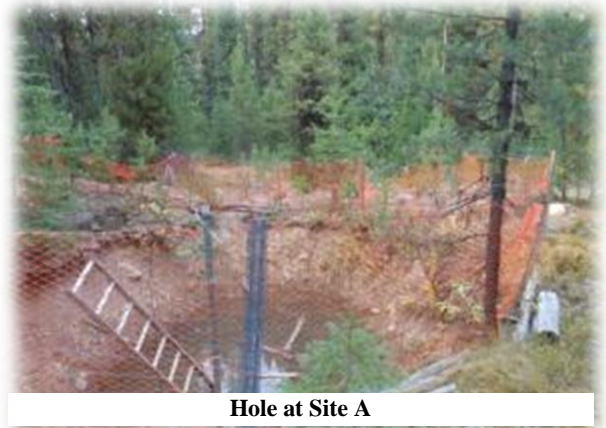
Equipment to be operated on the claims includes a backhoe, Trommel, shaker, water pumps, generator, a pickup truck, atv's, motorcycles, utility trailer and hand tools. A self-contained RV will be used for sleeping quarters while mining. The ford will only be used from July 15-Aug 15 and the bridge will be used all year round. A small shed on the site is used for storage.

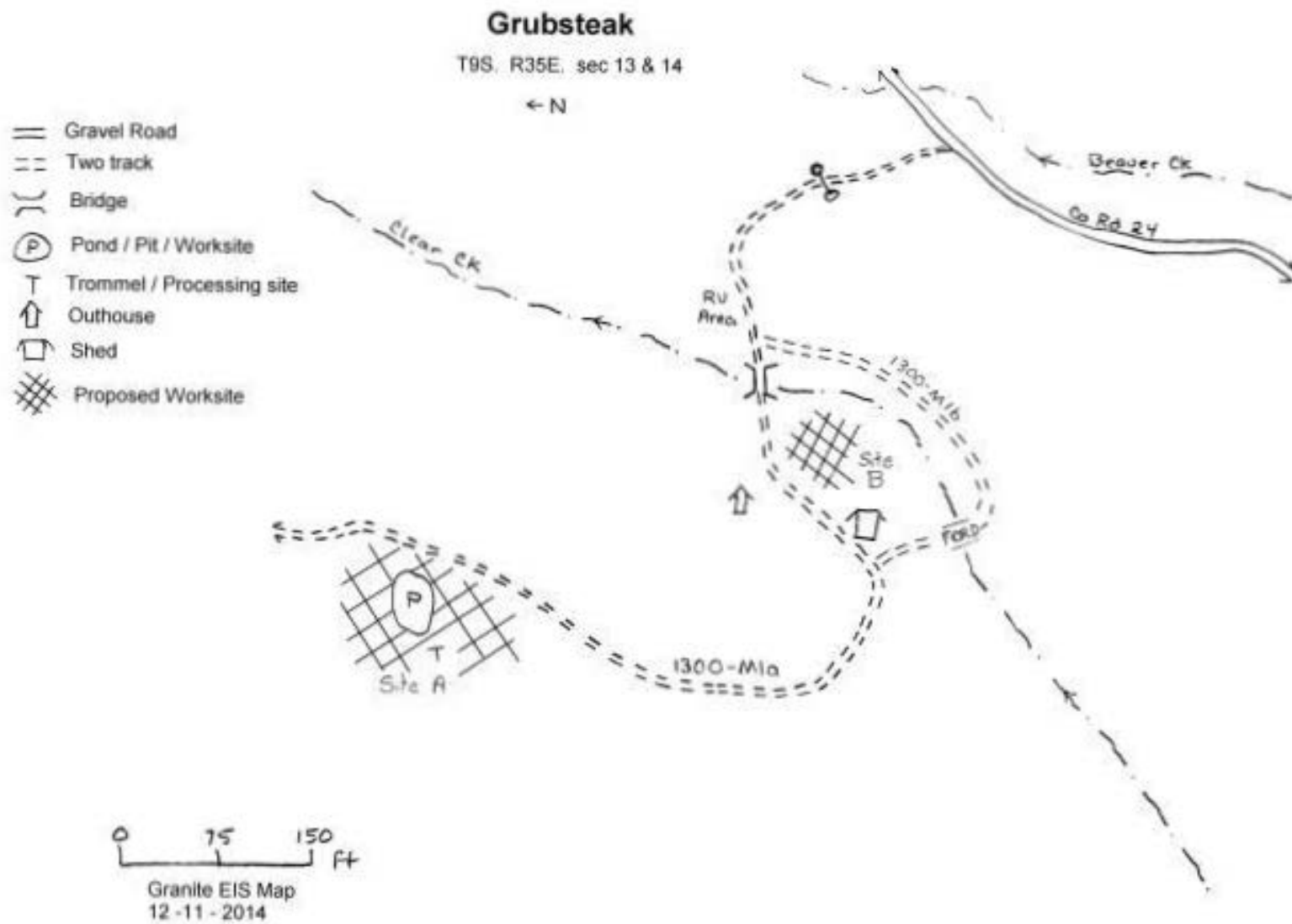
Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers. Fuels are to be stored out of the flood plain.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20 weeks - 120 days) for the next 10 years to complete the project. While the miner does not give an estimated production for each year he does describe two areas which will be mined. Based on the size of the holes, it is estimated that a total of 200 cubic yards of soil could be removed over the next 10 years. Of that an estimated 50 cubic yards could be processed. One could easily process that in one – two years, and even at five years a year they could easily do that in a couple of weeks a year in order to complete the project in the next 10 years.

No additional mitigation measures were identified by the miner in the Plan.⁽¹⁾





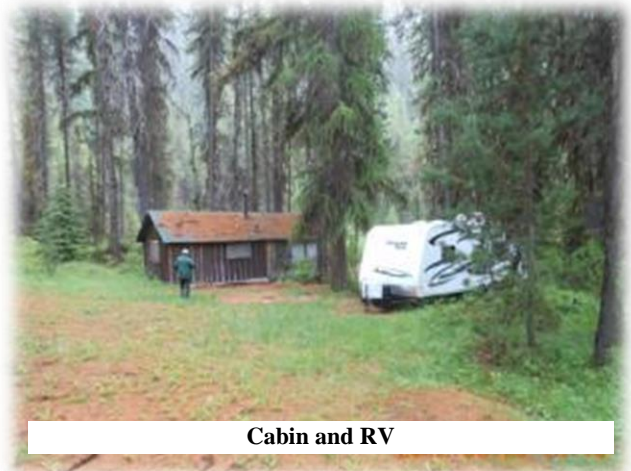
Hopeful 1

Claim Description

The Hopeful 1 is a placer claim located along the northern side of Granite Creek approximately 1 mile upstream of its confluence with the North Fork John Day. Access is by the closed system road 1035-012, which runs along the north side of Granite Creek. The legal description for the claim is T8S, R35E, NW1/4 Section 29 WM.

Existing Condition

The valley bottom and creek area was historically placer and hydraulically mined starting in the late 1800's and even up into the 1950's. The mining activities appears to have involved stripping and stockpiling fine-grained topsoils in elongated piles approximately 50 to 100 feet to the north and south of the creek, and then processing the more coarsely grained creek gravels. There is a small cabin and some old dredge ponds on the claim. The active working area consists of a small (15 x 20 foot pit) that is excavating under an old stock pile of soil on the north side of the creek, approximately 30 feet southeast of the cabin and 50 feet north of Granite Creek. This pit was originally started in the late 1980's and due to the old dredge gravels in the area does not hold much vegetation or fine dirt.



Cabin and RV

Recent Activity

The claimants spend a couple of weeks during the summer months on the site. It is estimated that only 1-3 yards is processed yearly is processed by hand with a small sluice. Inspections of the site have not changed much over the last 10 years.



Mining Site

Proposed Plan of Operations⁽¹⁾

The claimants will continue to work the small pit in the dirt bank that was originally opened in 1989.

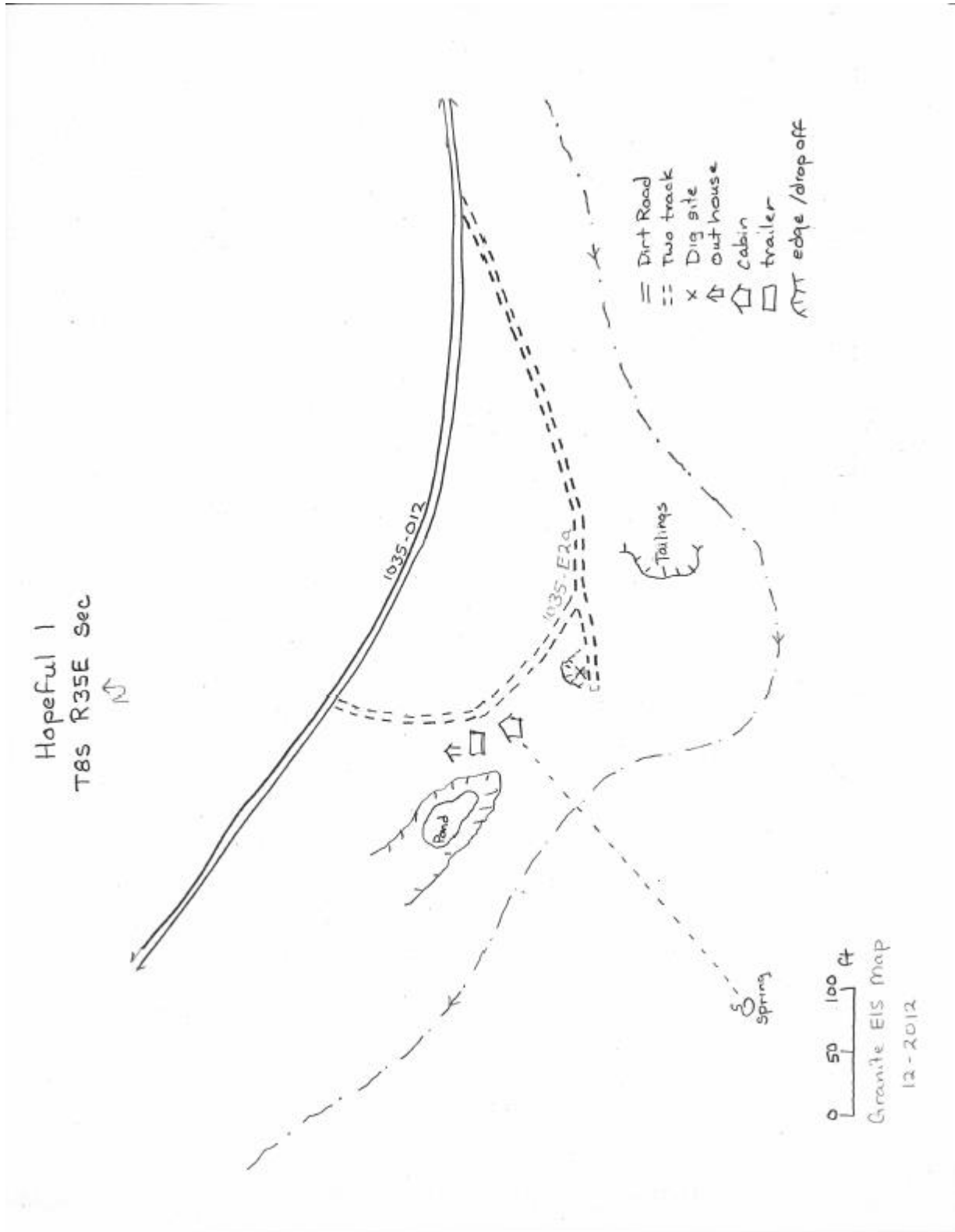
Equipment to be used will include a small backhoe, pick, shovel, pan-o-matic, and a small trommel. Wash water for the plant will be pumped from the creek and re-circulated through a shallow pit excavated in dredge tailings gravels approximately 15 feet north of the creek. The small volume of tailings generated will be disposed of in an old dredge hole 20 to 30 feet north of Granite Creek. Based on the map and a description of the operations, a minimum buffer of 15 feet will remain undisturbed between the creek and any mining activities.

Petroleum products used will be stored in vehicles and be removed from the site at season's end. Topsoil will be stockpiled and used later for reclamation. Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Due to the overall size of the operation, the hole will be left open until the operation is completed. Once completed, the site will be stabilized and re-contoured. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. The buildings and equipment will be removed, and the entrance road will be blocked with rocks and logs, and allowed to return to a natural state.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks) for the next 10 years to complete the project. According to the plan a maximum of 3 cubic yards a year will be processed. Depending on the mineral content this operation could be completed in 10 year or not. The mining activity is not expected to change much beyond that which has been done in the last 10 years.

No mitigation measures were identified by the miner in the Plan. ⁽¹⁾



Hopeful 2&3



Cabin

Claim Description

The Hopeful 2&3 placer claims are on the north and south sides of Granite Creek about 2 miles upstream from the North Fork John Day. Access to the claim is via Forest System road 1035, and then a closed non-system and a miner constructed roads. The legal description for the claim is T.8S, R.35E, Section 28 & 29, W.M.

Existing Condition

The claim was located in 1965 and segregated from mineral entry on March 24, 1966 and later withdrawn on July 9th 1968. The southern portion (300ft south of

the river's edge) was declared wilderness on June 26, 1984. The creek area was historically mined at the turn of the century and dredged again in the 1950's. The previous claimant mined the south side of the claim in the 1980's. A mineral exam was last done on the claim in 1989 and showed mixed results. The miner has no plans to mine in the wilderness.

A cabin, shed and outhouse exist on the north side of the river at the end of the access road. Water filtration plant exists on the northwest side of the claim. A harden ford exist on both the east and west end of the claim. A cable cart is allows people to cross the creek throughout the year. Water from the un-named creek on the south side of Granite is piped over to the cabin area. An additional pipeline was once used to feed the filtration plant and south side dig/pond area, but is not presently running.

Recent Activity

In 2009 a new claimant took over the claim and has been in the process of cleaning up the site and removing non-essential mining items. Current mining actives consist of hand work for annual assessment work.

Proposed Plan of Operations ⁽¹⁾

The miner is proposing to placer mine in selected areas on both sides of Granite Creek (outside of the Wilderness). Mining will be done by first digging a test holes 6x3x10 ft deep then expanding to ¼ acre parcels. Work on the claims would include hand digging, and processing gravels through a small wash plant. All mining activity will take place at least 20ft from the creek edge and processing will be at least 50 feet from the creeks edge. Material for processing will not be hauled across Granite Creek as there is a processing site on both sides. Equipment will cross on the east ford.

Process water will be recycled within the ponds. An existing pond (20' x 30' x 4' deep) lies on the south side of the creek and two ponds ((10' x 10' x' 10' deep and 10' x 15' by 4' deep) would be created on the north side for processing and settling.

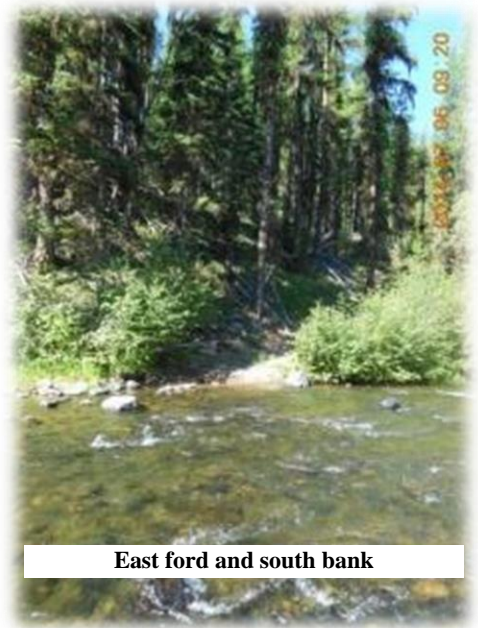
Equipment to be used on the claims includes a backhoe, cat, dump truck, Trommel, highbanker, washing plant, pickup, water pumps and hand tools. The cabins will continue to be used while mining, for sleeping quarters and storage. A gate would be placed on the 1035-E1b road into the mine site.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

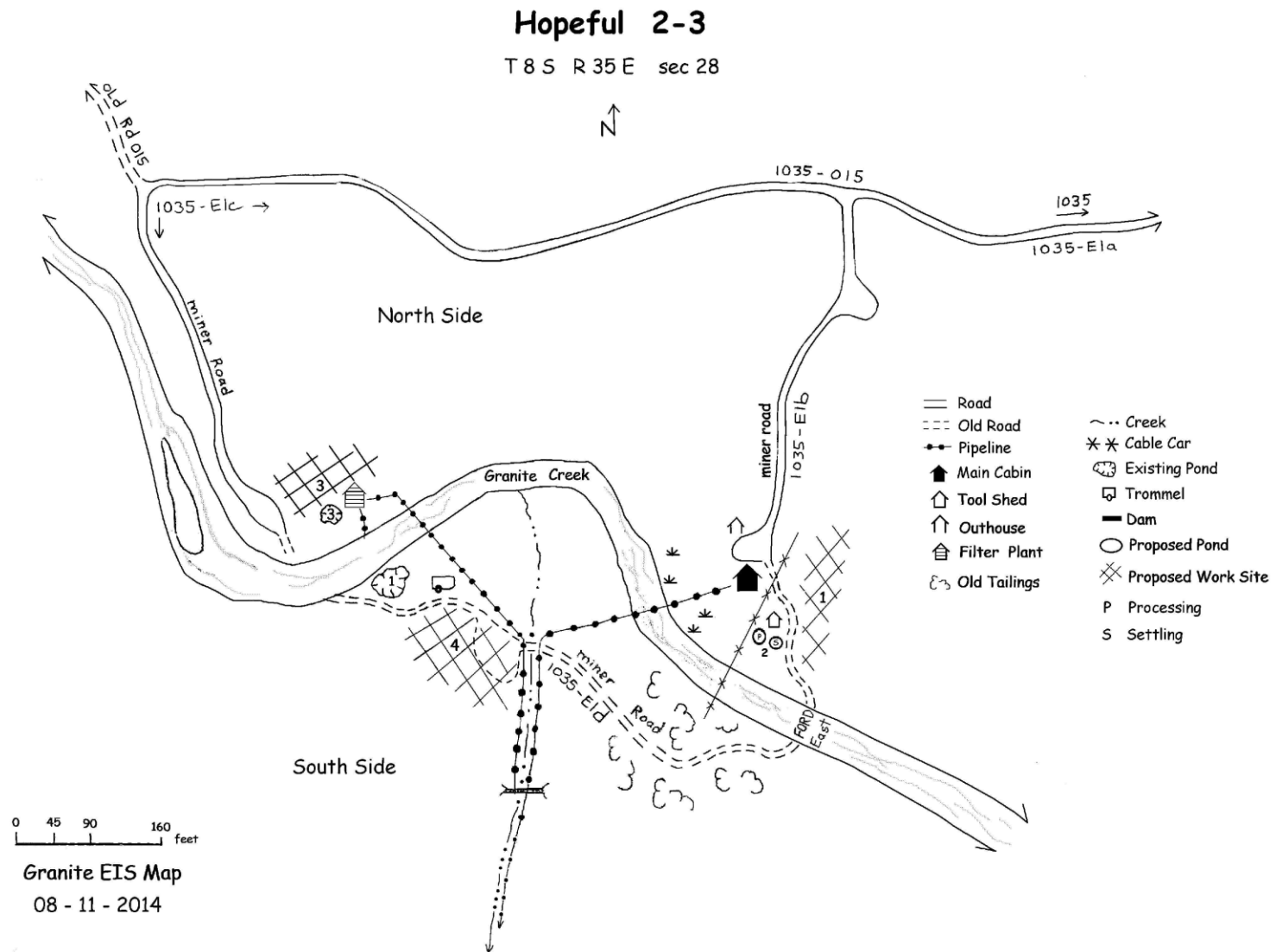
Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding will be done as needed and topsoil will be stockpiled for use in final reclamation. During final reclamation, all building will be removed and the miner created access road will be closed with piled rocks.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20 weeks – 120 days) for the next 10 years to complete the project. It is estimated that 15 cubic yards of material will be processed each year. Based on a hole size of 6' x 3' x 10' deep it is estimated that each hole would provide 2 cubic yards for processing resulting in the digging of about 7 holes a year. At this rate, it would take more than 10 years to dig and process the estimate 1089 holes it would take to mine the proposed estimated acre of ground.

No additional mitigation measures were identified by the miner in the Plan.⁽¹⁾



East ford and south bank



L & H

Claim Description

The L&H plan consists of only one placer claim. It is located at the head of Olive Creek about 4 miles from its confluence with Clear Creek. Access is by Forest System road 1305-200 which also provides access to private land in the area. A non-system road partially identified as the 950 road runs the length of the claim and is adjacent to Olive Creek. The legal description for the claim is T.10 S., R.35 E., Section 11, W.M.

Existing Condition

The banks along the creek consist of rock tailings most likely from the hydraulically mined conducted during the early 1900's. Additional mining activities have continued in the area on and off throughout the century. Vegetation is sparse in several areas especially along the west end of the claim near the Pete Man Ditch. Signs of several collapsed adits exist along the 950. A well-used campsite and small storage shed exist near the junction of the 200 road and Olive Creek. The claim runs below the Pete Mann ditch which goes along the west and south side of the claim.



Campsite

Recent Activity

An updated plan was submitted in 2010 when the new owners took over the claim. For the past several years the claimants have done some prospecting with hand tools and dredging to collect samples and assess the claim's value. It is estimated that less than 1 cubic yard of material has been moved/worked a year.

Proposed Plan of Operations ⁽¹⁾

The miner would like to continue placer mine along the access road adjacent to Olive Creek and reopen the existing 3 adits for testing. For the adit, a backhoe will be used to clear away the debris from the portal and internal work would be done by hand. For the placer sites a backhoe will be used to dig test holes (20' x 30' x 10' deep) will be dug and an undisturbed miner identified buffer of 10 feet will be maintained between the active mining and the creek. Processing will take place at the existing pond site where the water will be recycled from off channel ponds.

Equipment to be operated on the claims includes a backhoe, small cat, one-yard loader, air compressor, a pickup truck, and hand tools. Fuels are to be stored out of the flood plain.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding will be done as needed and topsoil will be stockpiled for use in final reclamation. The trailers will be removed at the end of each season. Final reclamation will include closure of the adits and refilling the settling pond.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks – 120 days) for the next 10 years to complete the project.

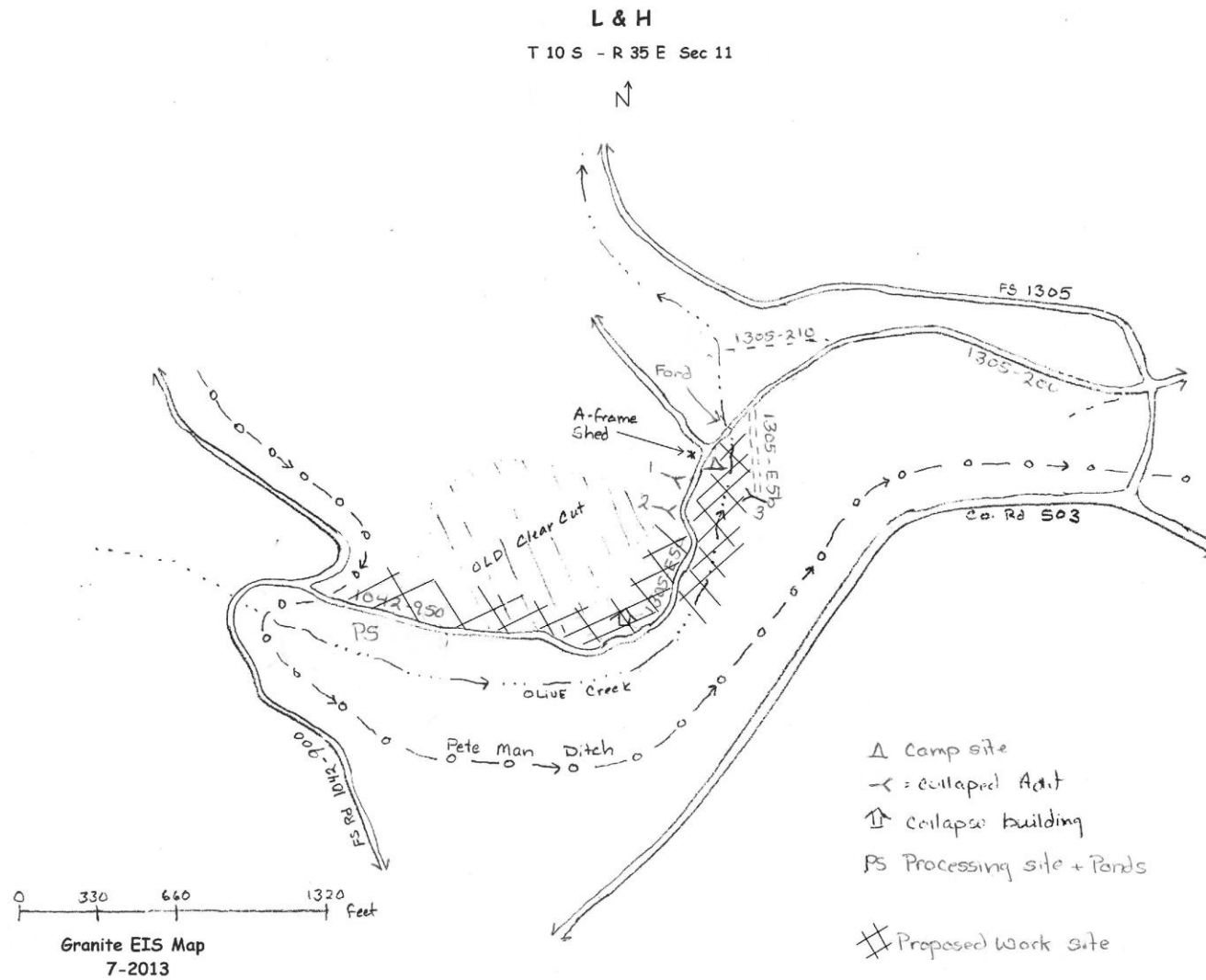
For the placer portion of the claim, Based on the expected hole size of 20' x 30' by 10 ft deep it will take approximately 532 holes to completely mine the estimated 8 acres identified in the plan. As no estimated excavation rate was given, the production rate could be based on the lack of water and the current size of the ponds (less than ½ dig hole) it would easily take more than 10 years to process all 8 acres should it prove productive.

The 3 adits will be open for testing purposes only. This would involve remove of the debris currently in the portal and material removed for testing purposes. No plan was presented to process material beyond this point.



Collapsed Adit

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾



Lightning Creek

Claim Description

The Lightning Creek plan consists of an association placer claim located along Lightning Creek about ½ miles from its confluence with Clear Creek. . Access to the claim is via Forest System Road 1310 and secondary open roads in the area. The claimant would like to placer mine in the old tailing and along the high-bank. The legal description for the claim is T.9S. R.35E., Sections 28, 33 W.M.

Existing Condition

Mining activities at this site dates back to the late 1800's when the area was hydraulically mined and continues throughout the century at various levels. The result is several acres of washed tailing rocks along the east side of Lightning Creek. The east side of the creek is accessed by a claimant constructed bridge. The claim has a series of settling ponds developed down thru the middle of the tailings and a current dig site along the eastern edge of the tailings. Some areas of the tailings are starting to grow 10 foot tall lodge poles and willows are becoming established along the creek. The area east of the tailings is covered with mixed conifers.

The claim has two usable cabins, but the blacksmith's shop, and the garage/storage shed are in poor (unusable) condition. There is a miner constructed bridge on the 1305-100 road that access the previously existing settling ponds and mining area.



Settling ponds

Recent Activity

The claimants have been known to work the claim for a couple of weeks a year and especially major holidays. A couple of yards a year have been moved and a trammel was used to process the material. About 5 years ago the deck on the access bridge (1305-100 road) was replaced and signed for mining use only.



Dig site

Proposed Plan of Operations ⁽¹⁾

The miner would like to placer mine three sites along the high bank area on the south side of the creek. A miner constructed bridge and parallel hardened ford (used twice a year for heavy equipment during the in-stream work period) will be used by the miner to access existing Forest Service roads. Water for processing will be pumped from Lightning Creek under a 1921 water right into existing ponds where it will be re-circulated. Each site will be reclaimed before moving on to the next. Past mining disturbances will also be reclaimed. Mining activities

are separated from lightning creek by old dredge tailings, a Forest service road, and a series of old dredge ponds.

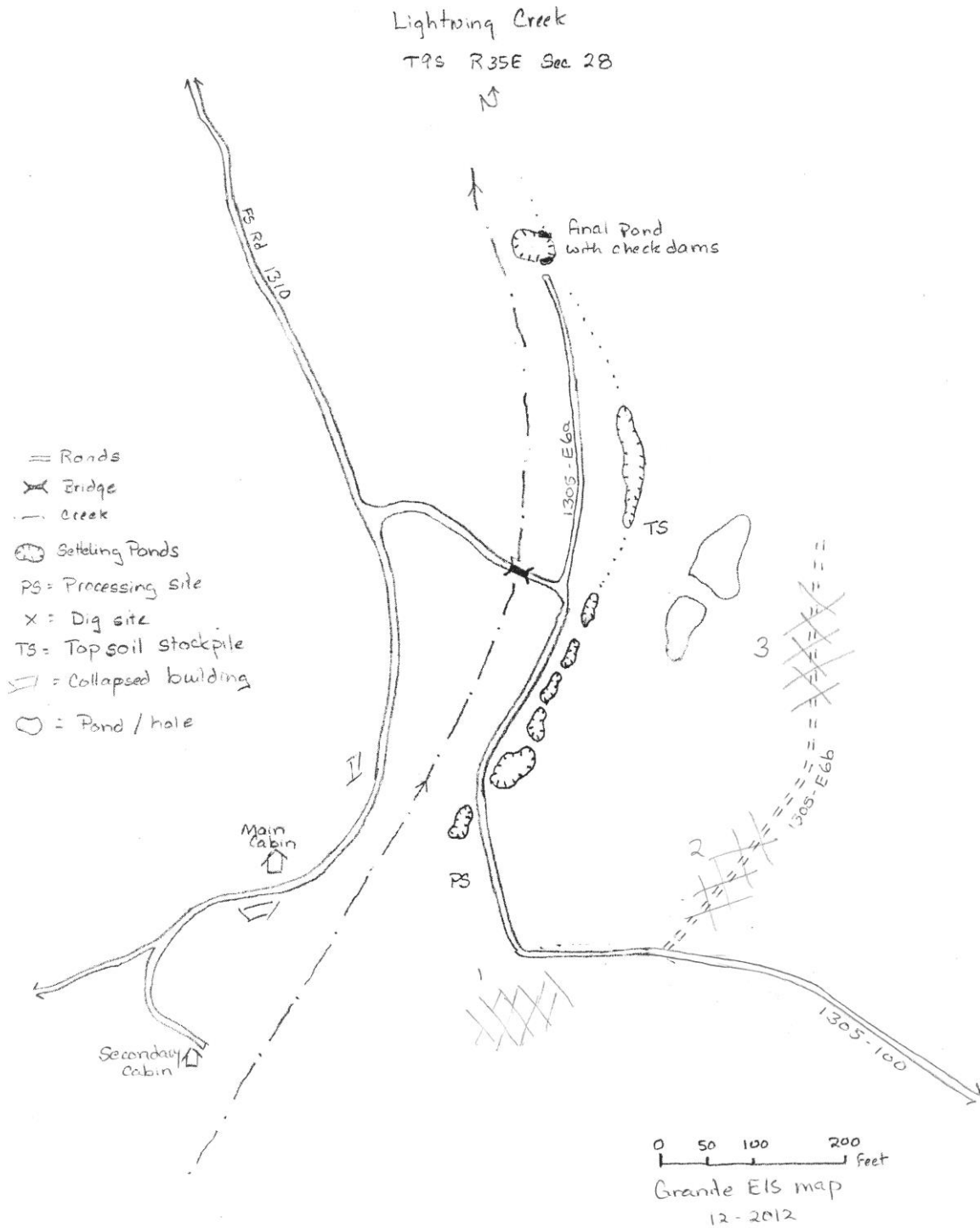
Equipment used on the claim will include a backhoe, excavator, D4 cat, one or two 5-yard dump trucks, 4-wheel drive pickups, washing plant, generator, pumps and hand tools. All buildings will be used and maintained while mining is taking place. Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding will be done as needed and topsoil will be stockpiled for use in final reclamation. Final reclamation will consist of re-contouring the access routes along the hillside, reclaimed areas will be mulched and dry ponds will be re-contoured. The bridge will be dismantled and the ford closed. All equipment and associated material will be removed from the National Forest System lands.

The miner will also operate a small suction dredge under the terms and conditions of a State dredging permit from July 15 to August 15.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks – 120 days) for the next 10 years to complete the project. The plan calls for processing a maximum of 50 cubic yards per day and it is estimated that they will move about 150 cubic yards of material in order to do this. Based on 3 holes of 50'x100'x15'deep (5555 cy). At full production it would take the miner 40 days to dig this. Given startup time, break downs and rehab, the project could easily be completed in 3 years. Based on the min estimates of 20 cubic yards a day, it would take closer to 6 years.

No mitigation measures were identified by the miner in the Plan. ⁽¹⁾



Little Cross 1

Claim Description

The Little Cross I plan consists of only one claim. It is located along Granite Creek, south of county road 24. It is approximately ¼ mile west its confluence with Bull Run Creek. Access is by the paved county road 24 and a well-used unnumbered camping road. The legal description for the claim is T.9 S., R.35 E., Section 01 and, T.9 S., R.35½ E., Section 04 W.M.

Existing Condition

Mining began in this area in 1861. In the early 1900's the flood plains along Granite Creek were dredged for the first time and was last dredged in the 1940-50's. Placer mining continues even today as people continue to search through the rocks and stream bed. The dredge tailings have a scattering of short 15-20 foot tall lodge pole and occasional brush.



Dispersed camp site

Recent Activity

The recent activity on this claim has consisted of hand panning, dredging and the use of small sluice boxes. The road into the claim is used for dispersed camping.

Proposed Plan of Operations⁽¹⁾

The claimant would like to placer mine a pit at the end of the road (dispersed campsite road) that is about 50 feet of Granite Creek. Ground water collected in the pit will be used and recycled for the operation. Processing will be done at the dispersed camping site directly east of the pit.

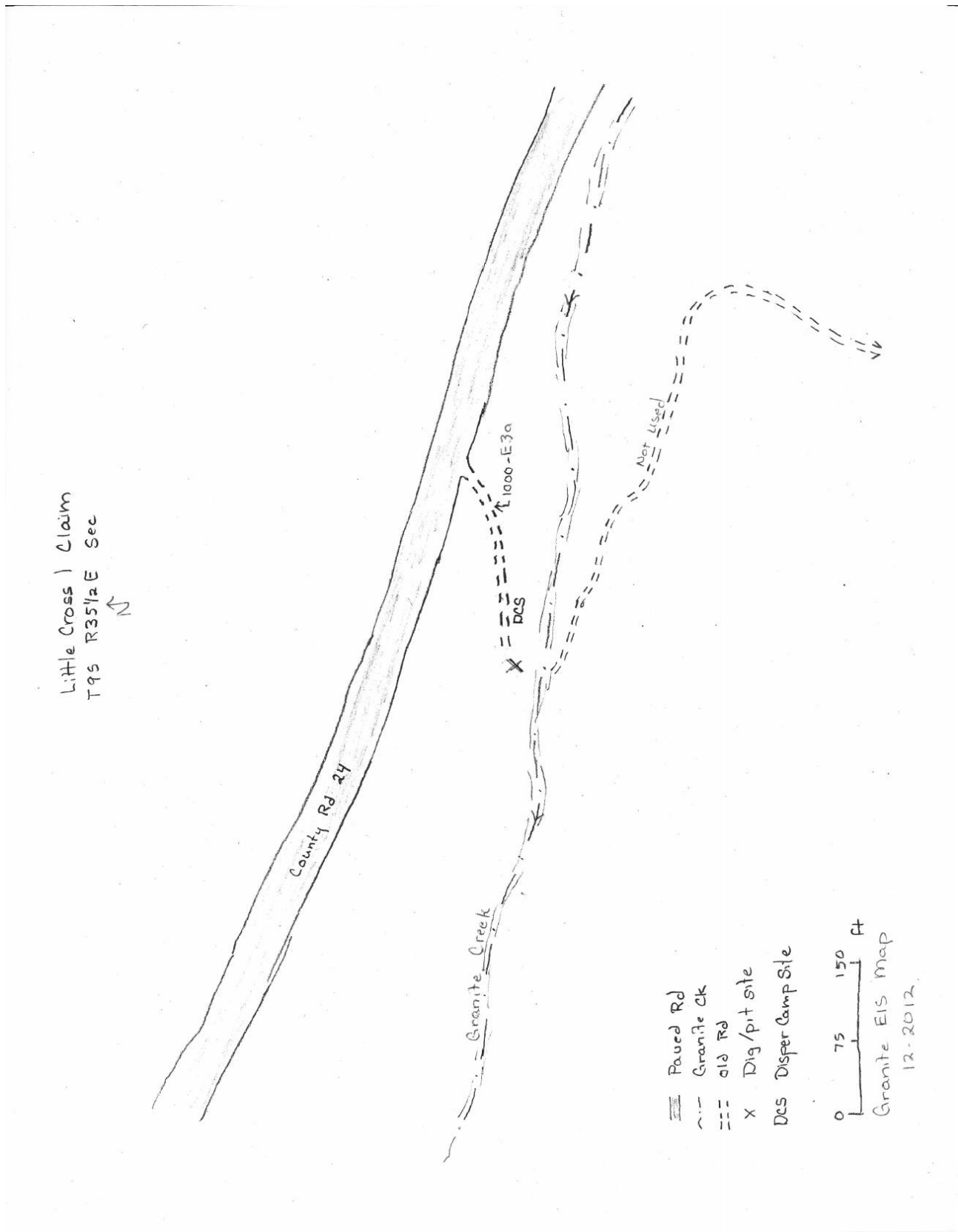
Equipment to be operated on the claims includes a backhoe, highbanker, dredge, atv, a pickup truck, and hand tools.

The miner will also operate a small suction dredge under the terms and conditions of a State dredging permit from July 15 to August 15.

Reclamation plans for the pit are to return the area to its previous state, an old rocky dredge pile. Reclamation plans for the dredging will follow the rules as listed in the state permit.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks -120 days) for the next year to complete the project and dredging for the next 10 years. The excavation of the hole with a back hoe could easily be completed in one year. As gold continually travels through the stream system it is expected that a new supply for dredging will be available each year.

No additional mitigation measures were identified by the miner in the Plan.⁽¹⁾



LUCKY STRIKE

Claim Description

The lucky strike plan consist of 2 lode claims located ½ mile south of Lightning Creek and about 2 ½ miles from its confluence with Clear Creek. The legal description for the claim is T.10S., R.35E., Section 3, W.M.

Existing Condition

The western portion of the claim contains a cabin, developed spring, shed, and a 2-stamp ore mill which have been maintained in their original condition.

The eastern portion of the claim is referred to as the old Belcher mine on Forest Service maps. Several years ago the 100 foot access shaft was filled in for safety reasons. To the east of the shaft is a collapsed adit but one can still see the outer 150 feet of the light gauge track. A small head frame over the shaft has collapsed. According to a state survey, the presence of sulfides has been reported in conjunction with this dry adit.

The Pete Man Ditch crosses below the claim along the northern and eastern edge of the claim.



Recent Mining Activity

During the past 5 years the building that houses a two stamp ore mill has been maintained, however the stamp mill is not operable. A plan was approved in 1993, but as of this date, the adit is still closed. Only placer samples have been hand collected from the area near the tower and processed during the past 15 years

Proposed Plan of Operations⁽¹⁾

The claimant proposes to re-open the existing tunnel system, and backfill exploratory placer holes which were excavated by the original claimant. A tunnel would be extended through an existing “vertical tunnel” (shaft) along the vein. The stamp mill and cabin will be restored to original condition. Any “viable” material will be hauled offsite for processing, or may be processed in the mill onsite depending on quality. Ongoing tunnel extension, including exploratory testing in an adjacent tunnel, is anticipated. Once inside the adit, the work will be done by hand, and the volume of waste rock generated will be small. The waste rock will be placed near the excavation, and cribbed with cut timbers to minimize erosion. Ore will be removed for commercial processing as the decision to use the mill has not been made yet.

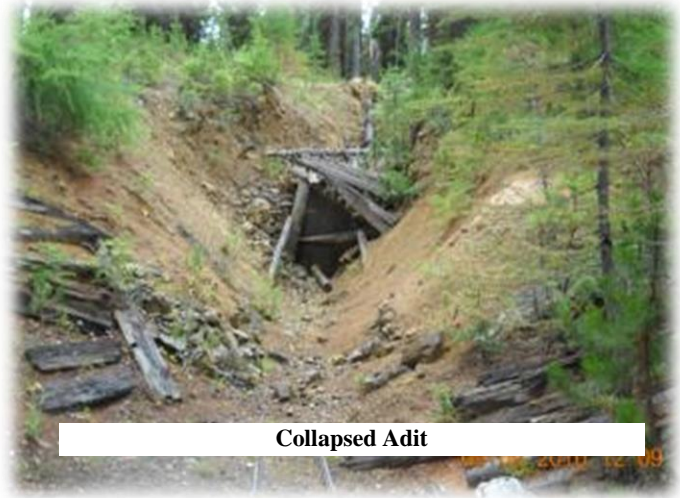
Equipment to be used on site will include a rubber-tired backhoe, pick, shovel, ore car, chainsaw, electric roto-hammer, and 4000-watt generator. Small volumes of fuel will be kept on site during the summer, under lock and key.

The existing cabins and mill will be used during the mining season. The spring is used for domestic use at the cabin.

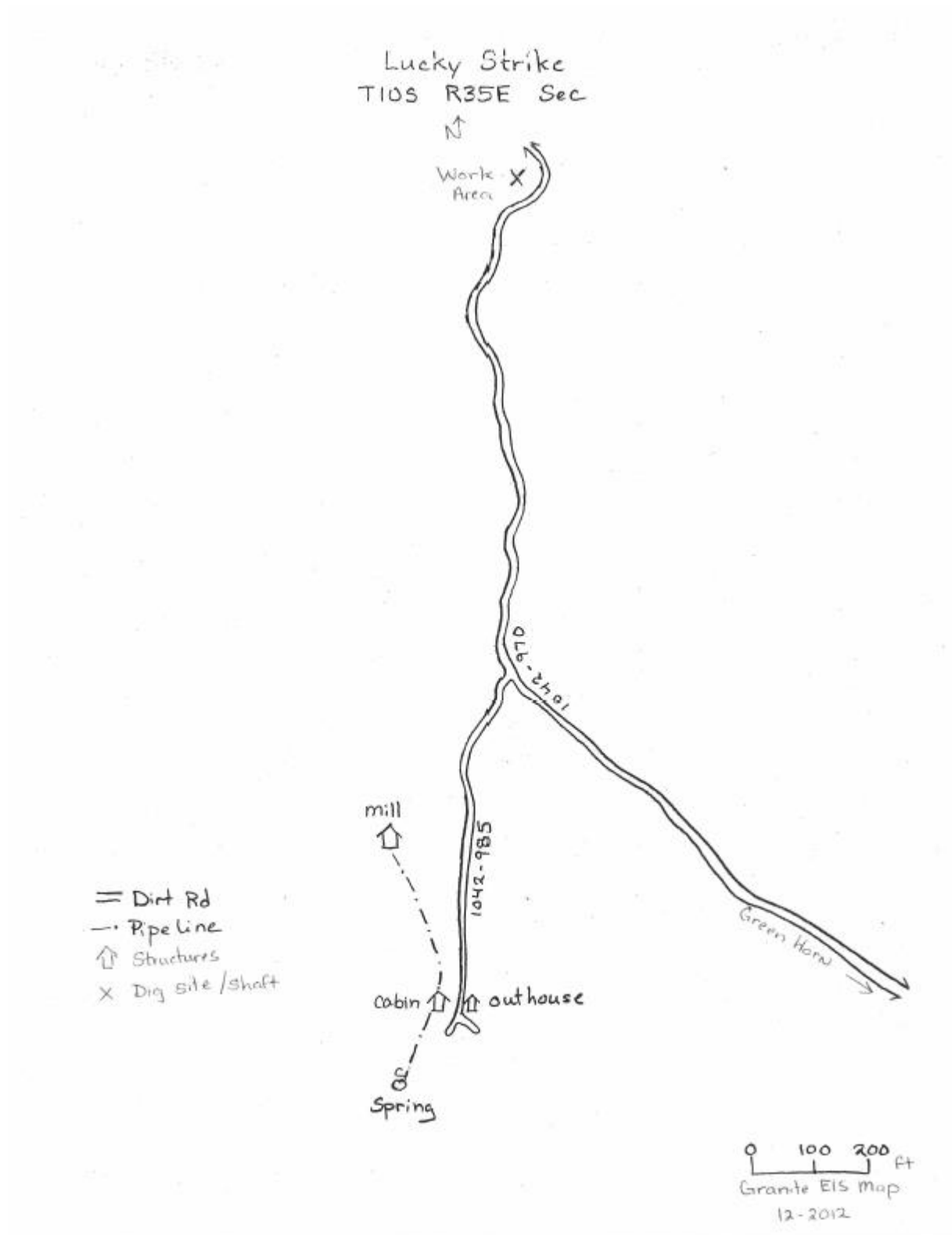
Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Final reclamation will be to remove all equipment and buildings.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. Estimated production is 25 cubic yards of tailings, annually.

No Additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾



Collapsed Adit



Make It

Claim Description

The Make It plan consists of only one placer claim. It is located along Granite Creek approximately 6 mile north of its confluence with Granite Creek. Access is by Forest System road 7300, and 7300-700. The legal description for the claim is T.08 S., R.35½ E., Section 27, W.M.

Existing Condition

The make it claim was historically mined in the early 1900's. The northern portion of the claim was at one time a large reservoir while the southern portion of the claim consists of old dredge pilings from the hydraulically mined along Granite Creek. The old reservoir bottom is sparsely vegetated and has the occasional 15' tall lodge pole. The surrounding area is a more typical conifer forest. The creek banks and the edges of the pond are covered with various shrubs and willows.

At the north end of the claim, a pond (about 30' across by 6' deep) is located adjacent to the east bank of Granite creek. South of this pond, the draw flattens out into the old reservoir bottom with an undisturbed highbank that runs along the east side of the flat. A non-system road (7300-E2a) runs up the east side of the claim to the old cabin and is used for mining access. The collapsed cabins on the claim are not usable and have been signed as Forest System property. Several collapsed adits exist in the area but there are no large mine dumps associated with them. The claim is bounded by Forest System road 73 on the west, 7300-720 on the east and 7300-700 on the south.



Processing site

Recent Mining Activity

They have been using hand equipment to work the highbank along the east side of the claim. Work is usually done over the holidays and occasional weekends. They typically work less than 1 yard a year and usually camp along the 73 road.

Proposed Plan of Operations⁽¹⁾

The miner is looking to test 3 sites along the cut bank (east edge of flat valley bed). For the first couple of years of operation will be done with a pick, shovel and a small highbanker. Water will be obtained from the existing pond. Later a backhoe will be brought in to dig holes 15' to 20' feet by 8' deep for testing with a small trommel. The miner will maintain an undisturbed 50 foot buffer between the creek and the activity mining site.

Equipment to be operated on the claims includes a backhoe, Trommel,, a pickup truck, and hand tools. A self-contained travel trailer will be used for sleeping quarters during mining operations.

Road maintenance will be accomplished annually on the access road to the claim and the existing gate will be maintained.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers, and out of the flood plain.

Reclamation will be on going. Test holes will be refilled, contoured and seeded. The site will be stabilized annually before close out. Grass seeding

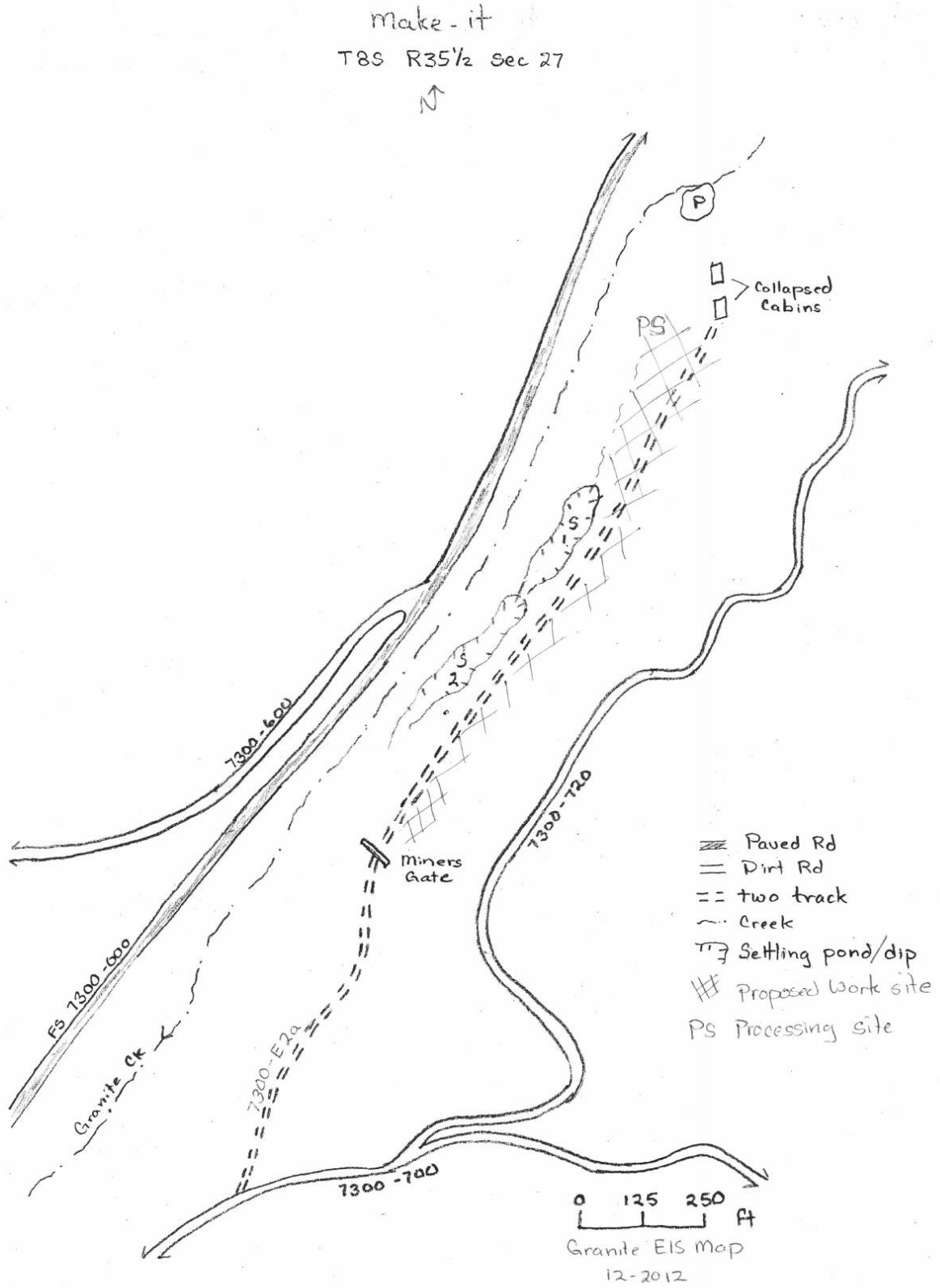


Old settling pond area – Valley floor

and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. On final reclamation the gate will be removed and the road closed with an earth berm.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to typically work from June through October of each year (20weeks) for the next 10 years to complete the project. A maximum excavation rate of 20 cubic yards per year over 10 years would result in the processing of a maximum 200 yards. This would result in about 1 test pit every other year.

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾



Muffin

Claim Description

The Muffin plan consists of three placer claims. It is located on Last Chance Gulch Creek a tributary to Boulder Creek that joins with Granite Creek approximately 1 mile south of the claim. Access is by Forest System road 7355-012. The legal description for the claim is T.18 S., R.35½ E., Section 34, W.M.

Existing Condition

This area is characterized by an open valley meadow covered with grasses, a few shrubs along the creek and clumps of 20 -30 foot tall lodgepole. The area shows little signs of past mining. According to the records, the present mining site was established in the late to 70's or early 80's when the dam and settling ponds were constructed. It is possible that some mining existed in the area prior to that based on an old house site and the history of the area. The soils along the creek resemble fine ash sediments and show little signs of past disturbance in the area proposed for placer mining.

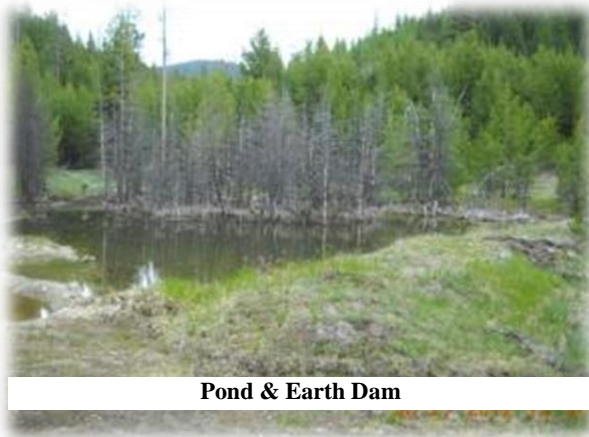


Processing site

The Muffin claim has a well-developed dispersed campsite along the 012 road on the west side of the creek. The 012 road continues across the creek to the processing site on the east side which consists of 3 existing settling ponds (@ 10' x 40' x 6' deep). An earthen dam (@ 6' tall and 100' across) creates a reservoir in the creek. The processing site covers about a ½ acre of ground with the reservoir covering around another ½ acre.

Recent Activity

In 2012 the new claimant did some processing of existing material that was stored on site under a Notice of Intent. The previous claimant extended the 012 road into the claim and the first half was graveled by the previous claimant.



Pond & Earth Dam

Proposed Plan of Operations ⁽¹⁾

The miner is proposing to continue mining along Last Chance Gulch Creek using the existing ponds and roads. Four sites have been selected for further testing and in which holes 20' x 25' x 10' deep will be excavated with a backhoe. Approximately 4-10 yards of material will be removed for processing from each test site during the operating season. There is one processing sites which initially uses the water from an existing reservoir to fill 3 existing ponds and then recycle for processing. According to the map and site

measurements, the miner has an undisturbed buffer of 20 feet between the creek and the activity mining site.

Equipment to be operated on the claims includes a backhoe, 3-5 yard dump truck, ATV, pickup, sluice boxes, highbanker, Trommel, generator, Self-contained travel trailer, pickup truck, and hand tools.

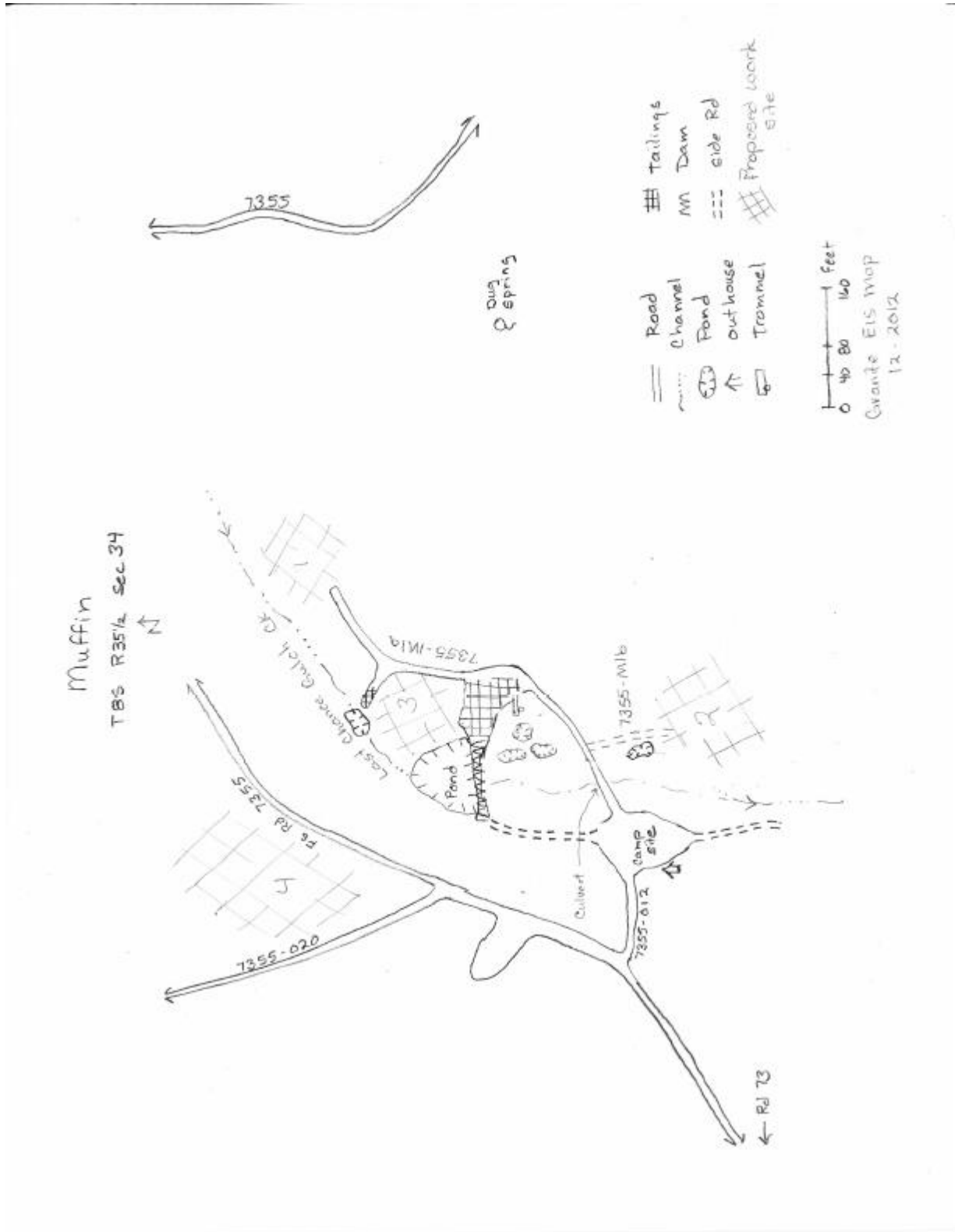
Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers and stored out of the flood plain.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

This proposal is for a small scale, intermittent, family based mining operation designed to test the area for further ore values. The miner has asked to work from June through October of each year (20weeks) for the next 10 years to complete the project. At one to two sites a year, this would be about right. It is estimated that the work proposed in this operation will affect @ 3 acres.

Mitigation & Monitoring identified by the miner in the Plan ⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).



Old Eric 1&2

Claim Description

The proposed Old Eric plan consists of two placer claims. It is located along Granite Creek just north (upstream) of its junction with Bull Run Creek. Access is from county road 24. The legal description for the claim is T.9 S., R.35½ E., Section 04, W.M.

Existing Condition

The claims and surrounding area were dredged over 50 years ago, and the dredge spoils are now covered with small 20 foot tall lodgepole pine. It appears that Granite creek itself was at one point placed into the well-defined and channelized creek bed. The majority of the claim is primarily within the historic Granite Creek floodplain, although portions of the claim impinge upon an andesitic bedrock knoll on the west near the private land boundary. The creek bed consists of sand, gravel, and boulders to 12 inches, and the creek is locally confined to an 8 foot wide section and channeled by old dredge tailings



Mining area and final settling pond area

The Old Eric area consists of a well-used dispersed campsite @20 feet on the east side of the creek. A wooden plank is used as a foot bridge to access over to the west side of the creek. The creek has been channelized and is rather narrow in this location, due to historic mining activities. A thick growth of grasses and small shrubs covers the banks of the creek and a well vegetated dirt berm (@ 2 foot tall) runs south along the west bank of the creek and west (@ 50 feet) to the existing mining site. This dirt berm creates the outer walls of an old settling pond which is overgrown with native grasses and an occasional lodgepole pine. At the base of the short rock outcroppings, a series of 3 pits exist (the water source pit, the active mining pit, and an alternate settling pond). There are no buildings on the claims, although a small mobile trailer is moved onto the site during operations. The area of disturbance is less than 0.5 acre.

Recent Mining Activity

For the last 10 years, the miner has intermittently mined the area during the summer from Memorial Day through October. Much of the existing work was established under a previously approved Plan of Operations. Since 2000 the prospecting work (hand work) has been done under 36 CFR 228.4 and annually amounts to stays of 0-28 days and less than 1/2 yard a year.

Proposed Plan of Operations⁽¹⁾

Work on the claims would include hand digging, and processing gravels through a small wash plant which will recirculate the water until it is too dirty to reuse at which time it will be drained into the final settling pond. A backhoe may be used to loosen/deepen the prospect hole and clean the settling/holding pond of sediment as needed. Other equipment to be used on the claims includes a pickup, and a small trailer that is removed from the claims in the fall. The miner activities area is limited to those shown on the map. The settling pond is adjacent to granite creek but is separated with a dirt berm. The active digging site is will over 50 feet from the edge of the creek. While the miner did not define an undisturbed buffer between the

creek and the activity mining site, the level of mining is low and there is no expectation that the area outside of the activity mining area identified on the map will be disturbed.

The miner will also operate a small suction dredge under the terms and conditions of a State dredging permit from July 15 to August 15

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers. A travel trailer will be used for camping while the claim is being operated.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

This proposal is for a small scale, intermittent, family based recreational mining operation. The miner has asked to work from June through October of each year (20weeks) for the next 10 years to complete the project. A maximum excavation rate of 5 cubic yards per year and a limited water source are not expected to change the operation or its effect beyond that which has been done in the last 10 years. The current duration of this plan is proposed for 5-10 years which could result in the excavation of 50 cubic yards or a hole 7' x 8' x 3'.

No mitigation measures were identified by the miner in the Plan. ⁽¹⁾



Olive Tone

Claim Description

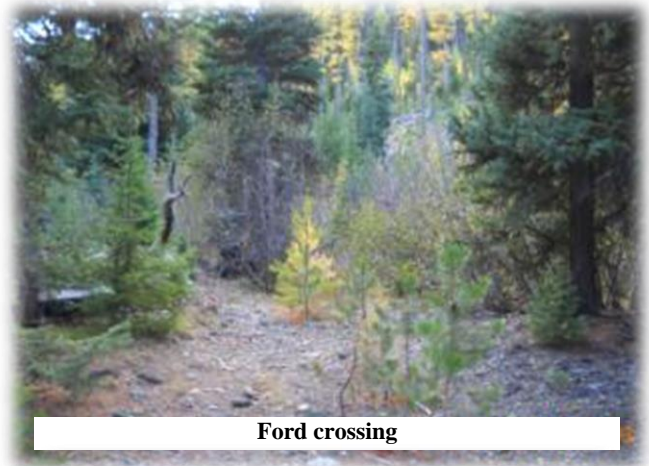
The Olive Tone plan consists of two placer claims that are located along the banks of Olive Creek. It is located about 3 ½ miles south of its confluence with Clear Creek. Access is by the unimproved forest road 1305-082. The legal description for the claim is T.10S., R.35E., Section 02, W.M.

Existing Condition

According to the map this site was once known as the Eureka mine. Lode mining, hydraulic mining and dredging in the early 1900's have disturbed the valley bottom gravels resulting in stacks/piles of rock along Olive Creek and Three Cent gulch

A non-system road along the east side of the draw fords Olive Creek in order to provide access to the west side of the claim and an old landing area which has a collapsed adit of unknown depth on its northern edge. The existing roads into the claim are often used by ATV's.

There are several abandon mining ditches throughout the area. The collapsed buildings on the claim are no longer useable and have been signed as Forest Service Property.



Ford crossing

Recent Mining Activity

While a previous plan was approved in 1995, inspections do not record any mining activity on this site since that time.

Proposed Plan of Operations⁽¹⁾

The claimant is proposing to dig a series of 30'x 30'x10' deep test pits with a backhoe along the west side of Olive Creek. Two off channel ponds will be created @ 40 ft from the creek and 20' x 10'x10' deep. Process water will come from the spring. With small runs water will be allowed to sink into the ground. With larger runs water will be recycled and settled in the ponds. The miner will maintain an undisturbed 40 foot buffer between the creek and the activity mining site.

Equipment to be used will include a backhoe, tractor with a front loader, 2 self-contained travel trailers, personal vehicles, highbanker, trommel/wash plant, gold panning equipment, pumps, and hand tools.

Any petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers and removed from the site at season's end. Final reclamation will remove all equipment,

stabilize the ponds for wildlife, close the access roads, and replant the area so it is similar to the surrounding area.

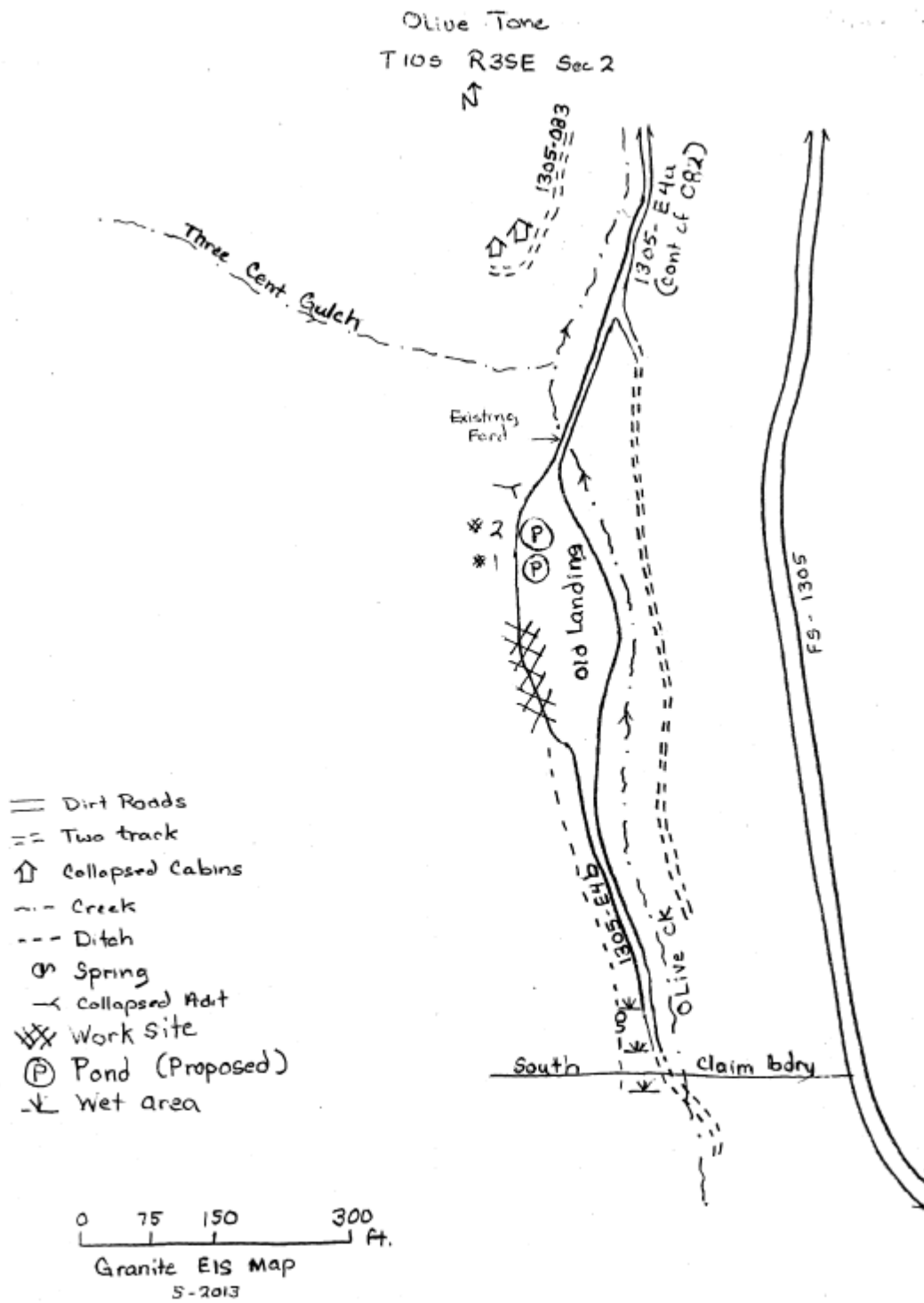
Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. It is estimated that approximately ½ acre is proposed for mining. Given an excavation surface area of 900 square feet, it is estimated that the area would be mined in 3 pits. At one pit a year, the mining would take 5 years to complete.



Proposed work and pond site (lone person)

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾



ROSEBUD #1,- #4**Claim Description**

The Rosebud plan consists of four placer claims which are located on the north side of County Road 24. Granite Creek flows in a westerly direction approximately 500 to 600 feet to the south of the claims and on the opposite side of the 24 road. The west edge of the claim aligns with the confluence of Clear Creek and Granite Creek and the north edge of the claim runs along private land. The legal description for the claim is T.9S., R.35E., Section 1, and T.9S., R35 ½ E., Section 4, W.M.



Power line road (ponds on left)

Existing Condition

Mining began in this area in 1861. In the early 1900's the flood plains along Granite Creek were dredged for the first time and was last dredged in the 1940-50's. Placer mining continues today as people continue to search through the rocks and stream bed. The dredge tailings north of the paved road and south of the powerline road contain isolated ponds that may or may not be connected underground to each other and/or Granite Creek.

Short lodge pole pines (15-20 foot tall), scrub willow and native grasses have taken hold on the dredge tailings. The high bank area to the north is undisturbed from past mining and contains larger trees. The ponds are filled with hydrophytic plants such as sedges (*Carex*), cattails (*Typha*), and duckweed (*Lemna*). There are no buildings or equipment on the claims



Pond

Recent Activity

The claims show little evidence of recent work due in large part to the coarse, sparsely vegetated nature of the spoil piles, which does not readily record recent disturbances. Non authorized people have occasionally been found placer mining on the claim due to its location. It is estimated that only 1-2 yards of material have been disturbed over the last 10 years.

Proposed Plan of Operations ⁽¹⁾

The miner would like to placer mine the area along the high bank (road cut bank) north of the existing powerline road. Yearly excavations/test sites will consist of 2 to 10 cubic yards of material. Pits will be dug by hand or backhoe on the level areas along the high bank north of the powerline road. Equipment to be used on the claims includes a pickup truck, small backhoe, trommel, water pump, gold spinner, and 3 cubic yard dump truck. No structures are planned for this operation. The mining activities area is about 300 feet from Granite Creek. As the powerline road, county road 24 and dredge tailing separated the activities Granite Creek and the old dredge ponds, there was no buffer identified by the miner.

Excavated material will be processed through a small trommel and gold spinner located near the test holes. Process water will be pumped from water-filled depressions in historic placer tailings, and be discharged to natural depressions where it will soak into the ground. No process water will directly enter Granite Creek.

Tailings will be stockpiled and returned to excavations at the end of the season. Topsoil will be stockpiled for later use in reclamation

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers. No fuel is stored on the site

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Reclaimed areas will be seeded with a Forest Service approved seed mix. All garbage will be hauled offsite for disposal and fuel will be stored in the pickup in approved containers..



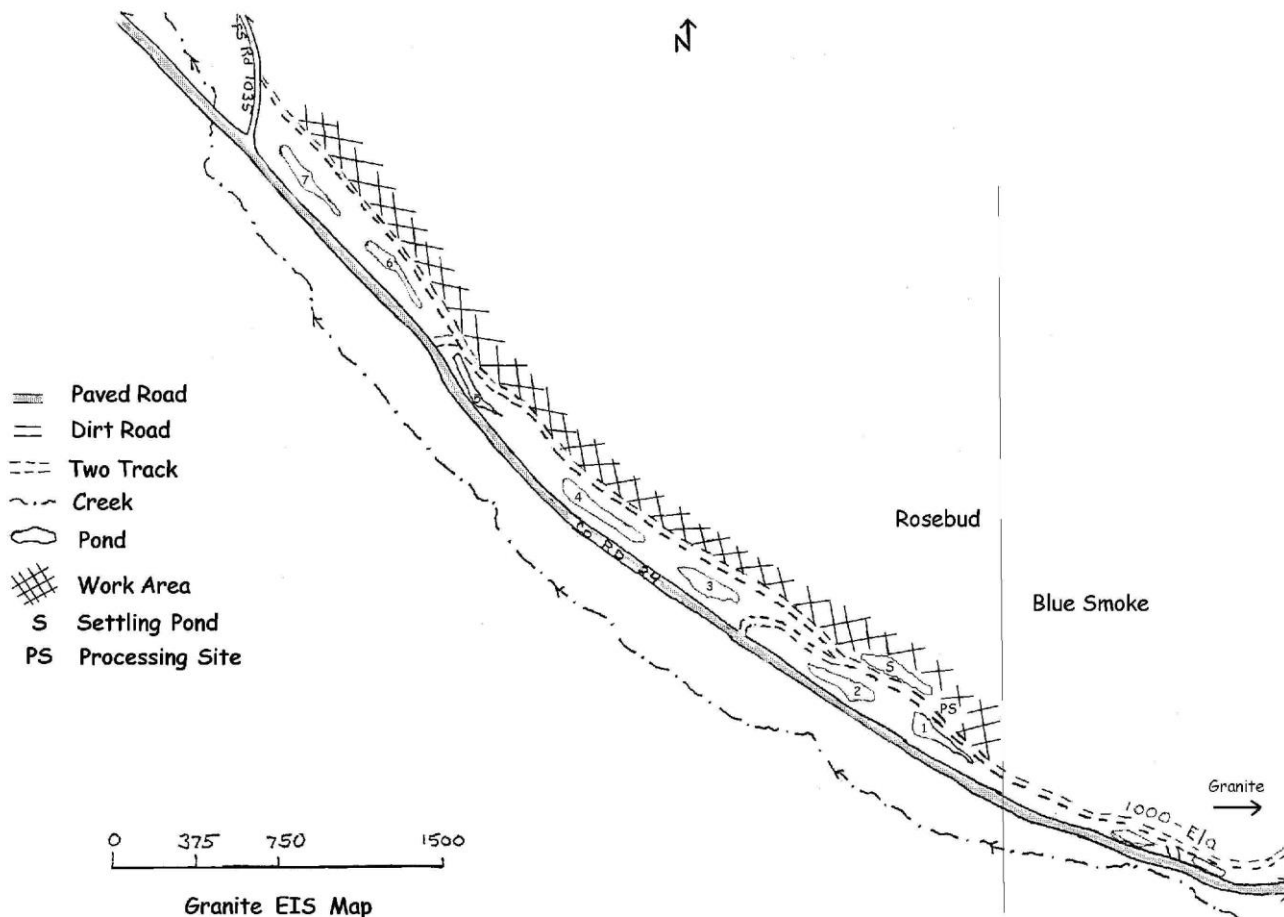
Example mining area

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks) for the next 10 years to complete the project. The plan calls for a maximum of 10 cubic yards to be processed a year. Based on the size of the hole, this would be 1-2 holes per year. At this rate, the operations would take more than 10 years to completely mine.

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾

Rosebud 1 - 4

T 9 S R 35 E sec 1



Granite EIS Map

07 - 2014

Royal White Group

Claim Description

The Royal White plan consists of four claims. It is located at the head of Irish Gulch approximately $\frac{3}{4}$ of a mile west of its confluence with Olive Creek. Access is by the unimproved forest road 1042-970. The legal description for the claim is T.10 S., R.35 E., Section 03, W.M.

Existing Condition

The Royal White group is located on a serpentine ridge and was originally developed in the late 1800's. Today the underground workings are known as the Royal White and Blackhawk mines. The National Forest boundary has been well marked where it abuts the private land along the north end of the project area.

The Pete Man Ditch crosses on east the east side of the claims and well below the proposed work area.



Royal White –Adit 1 Upper Adit

Recent Activity

According to inspections, there has been no recent mining activity on this claim in the last 10 or more years. In 2012 a gate was placed on private land on the 1042-982 road and the Royal White 1 portal was repaired and re-gated in 2013.

Proposed Plan of Operations⁽¹⁾

The claimant would start by reopen the Royal White 1 adit (one of 3 adits and 2 shafts on the claim). Material would be processed without chemicals (milled) at the Royal white 1 and/or the Blackhawk adit depending on the availability of the water. It is estimated that up to five tons of ore will be crushed and milled per day. As there are no creeks in the area there was no work buffer defined for this proposal.

Water for milling will be obtained from the Royal White 2 and the Blackhawk adit. Thru the use of on-site storage tanks, it will be recycled until it is too dirty to re-used, then it will be placed in an existing pond (20' x 30' x 6' deep) to evaporate.

Equipment used in the operation will include a backhoe, small cat, five yard dump truck, portable mill, portable saw mill, mucker, air compressor, a pickup truck, and hand tools. The existing buildings on site will be used for storage and sleeping quarters along with travel trailers when additional help is needed.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers. Dynamite will be used underground and sorted according to MSHA.

Annual reclamation will consist of grass seeding bare areas of soil and soil stabilization for winter. Final reclamation will consist of gating the portals, milled tailings will be mixed with cement and pumped back underground, and all buildings and structures will be removed.

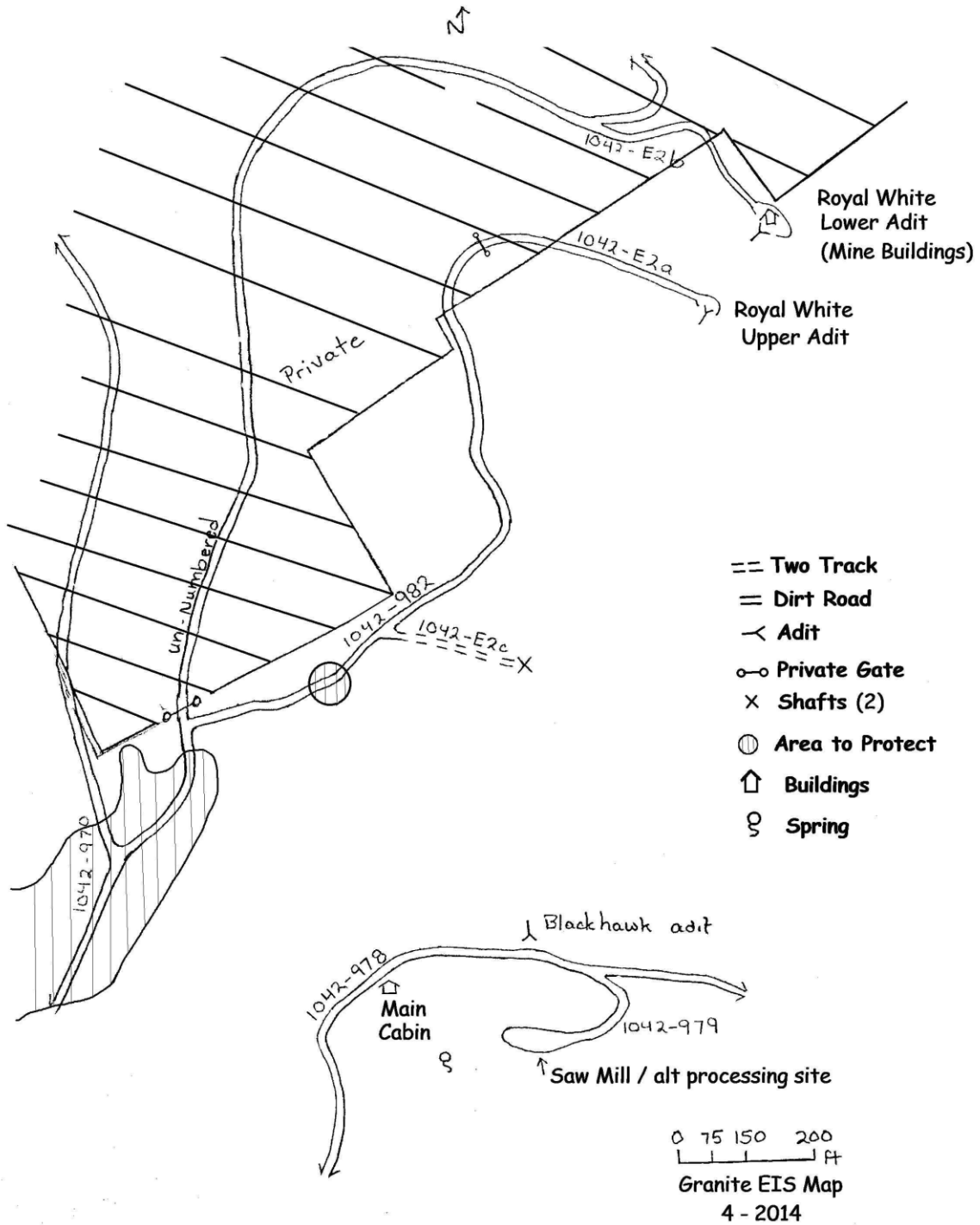
This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks) for the next 10 years or longer to work on this project. The miner has estimated that they will work 8 weeks a year. This work is expected to produce and approximately 35 cubic yards to mill and 57 cubic yards of waste rock. At full capacity the mill is expected to crush 5 tons (6-7 cubic yards) per week. The live of the mine will be based on the ore that is found and the request to continue working will be reviewed in 10 years.

Mitigation Measures identified by the miner in the Plan⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and development of Alternative 3).

Royal White

T10S R35E Sec 3



Ruby Group

Claim Description

The Ruby plan consists of 1 placer and 4 lode claims. It is located along Ruby Creek and Clear Creek approximately 2 mile west of its confluence with Olive Creek. Access is by the 1310 road, and several existing non-system side roads which provide access to the proposed dig sites and cabin. The legal description for the claim is T.9 S., R.35 E., Section 22, W.M.

Existing Condition

Mining began on Ruby creek in the late 1800's with both placer mining and the historic Ruby Creek lode mine as well as several other lode mines in the surrounding area. Both Clear creek and lighting creek were placer mined and dredged during this time. The surrounding area is covered with vegetation from lodgepole pine, spruce and Douglas fir which are all about the same age and date back to the early mining. Creek banks have grown in with grass and other brush.

The wilderness boundary is well marked along the south side of Ruby Creek. .



Cabin

Recent Activity

The miner removed the heavy equipment that had been left there since 2000. The cabin has been used for several months at a time during the summer, but there has been no documentation or sign of any mining beyond prospecting in the last 10 years.

Proposed Plan of Operations⁽¹⁾

The miner would like to placer mine 8 proposed sites along Ruby and Clear Creek. Operations would consist of digging, 5 to 20 holes at each site and removing 1-2 yards per hole for processing. A temporary atv bridge is proposed for crossing Clear Creek. The miner will maintain an undisturbed 10 foot buffer between the creek and the activity mining site.



Clear Creek Crossing

Equipment to be operated on the claims includes a backhoe, self-contained /portable, wash plant. Trommel, water pumps atv's and hand tools.

The existing cabin will be used for sleeping quarters during mining operations.

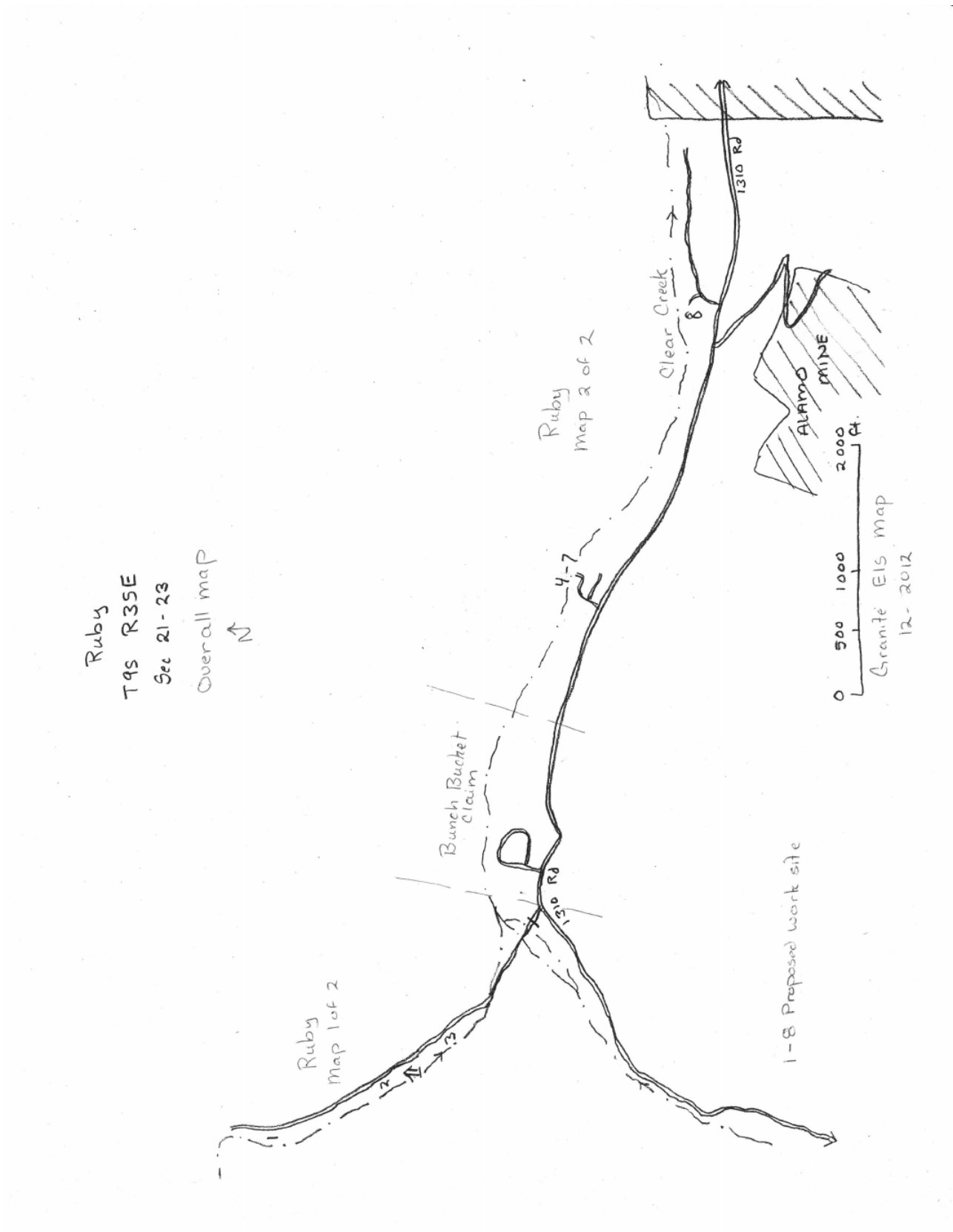
Road maintenance (filling pot holes, water bars and removal of dead trees from the road way) will be accomplished annually on the one mile of road needed to access the claim.

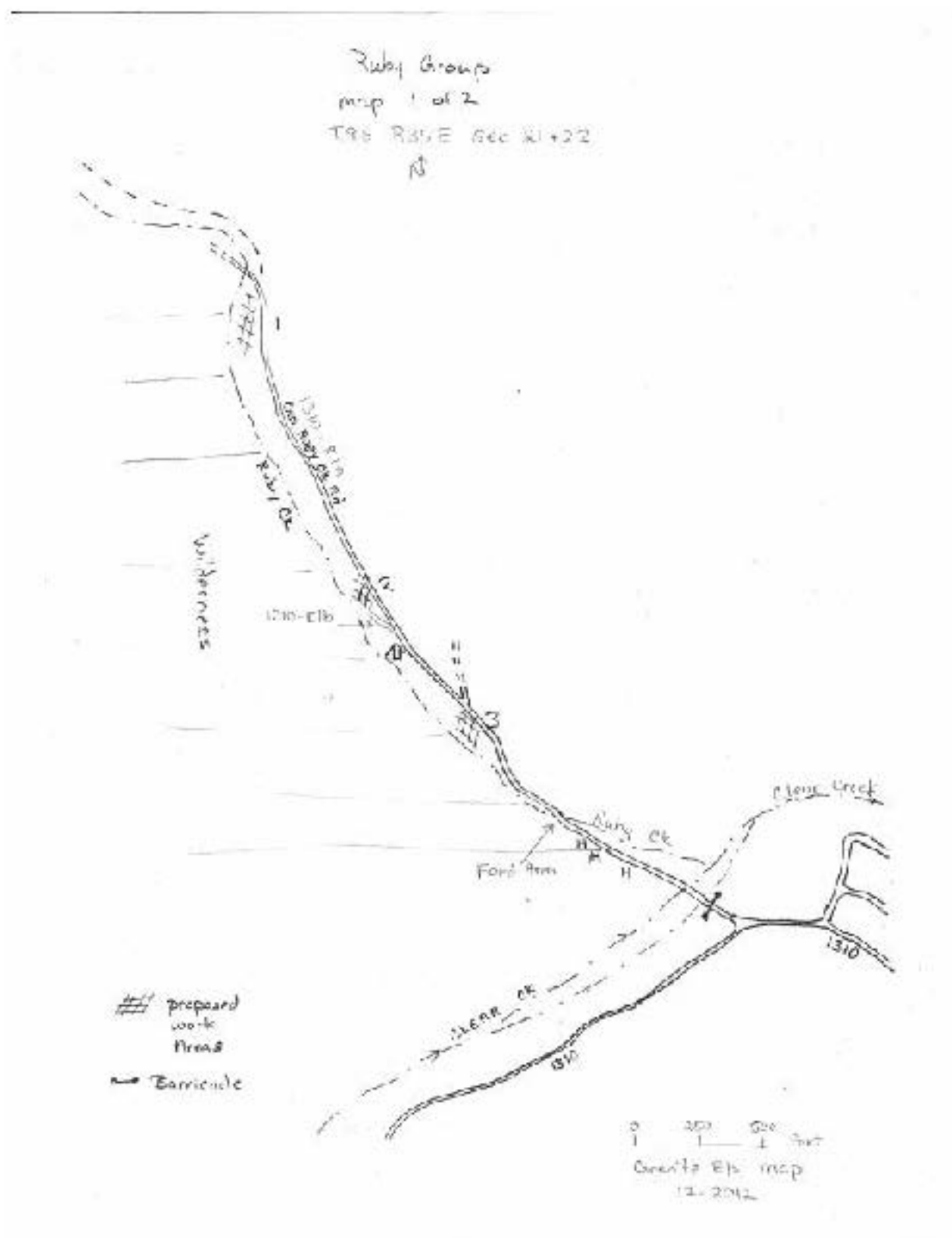
Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers and spill clean will be kept on site.

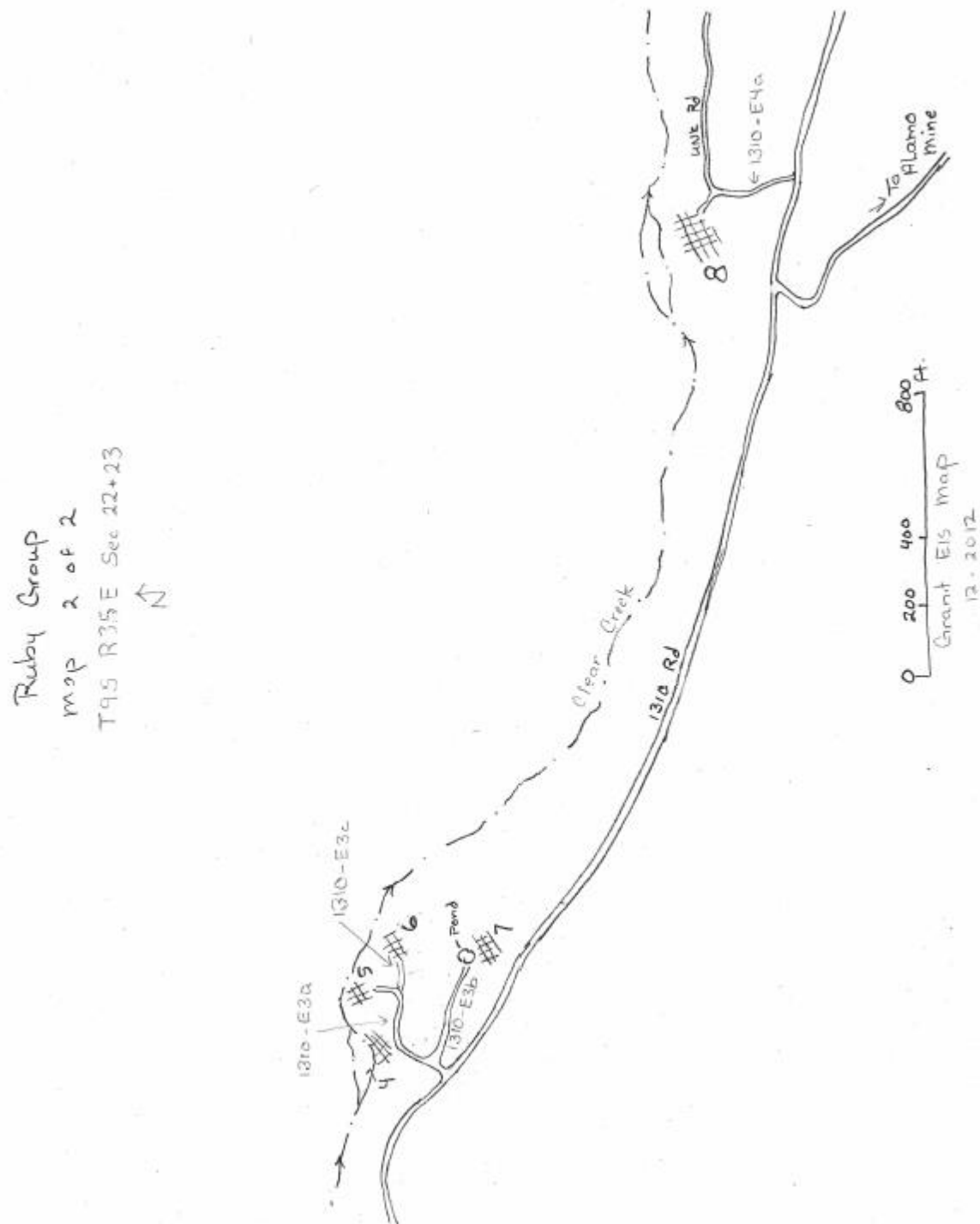
Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Once the area has been mined out or the claim closed, the pre-existing structures and road will be left in place unless the Forest service request otherwise.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. Production rate is estimated at 2-5 yards per year which would only relate to 1-2 holes per year. With the estimated size of the hole and the ability to dig with the back hoe, it would be possible to complete the proposed work load in 1 week each year. A longer stay would result in a higher work load (say one site per year) and result in a completion of the work proposal in less than 10 years.

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾







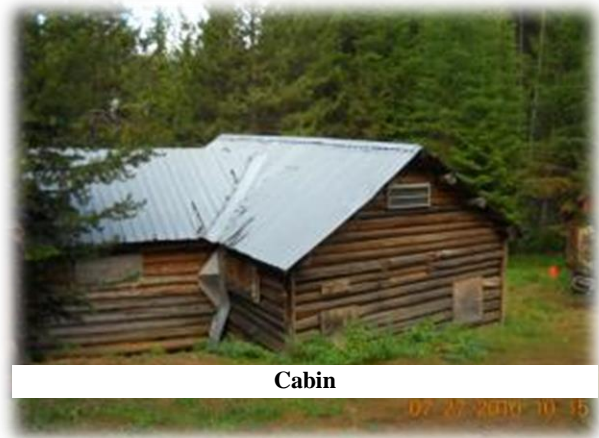
Sunshine/McWillis

Claim Description

The Sunshine/McWillis plan consists of three claims. It is located at the Sunshine Cabin, along McWillis Creek approximately ½ mile north of its confluence with Olive Creek. Access is by forest service road 1305-050, 1305-054 and a miner created road. The legal description for the claim is T.09 S., R.35 E., Section 02, W.M.

Existing Condition

Mining may have started in McWillis Gulch creek about 1900's based on the establishment date of the adjacent Pyx mine (south/uphill). The creek flows from the south and bends to the west as it hits the toe slope below the 1305-050 road and continues on down the draw. The creek banks are lined with old tailing piles covered with alder and a few lodge pole trees. A collapsed adit exists on the northeast side of the creek along an intermittent tributary which separates it from the cabin site. Excavations were conducted on the southwest side of the creek in the 1980's along with explorations on the adit. In the early 1990's the claimants relocated the non-system road into the cabin and proposed work area, placed a log bridge over the creek and gated Forest Service road 1305-054. A reported road or trail from the 1305-050 down to the creek was not found and would be rather steep if it did exist.



Cabin

An old trommel is located at one proposed processing site along with 3 existing ponds. Ponds 1 and 3 are connected with a pipe while pond 2 is connected to a seasonal tributary of the main stem. No ponds could be found west of the bridge and may have been washed out by the creek.

Structures on the site consist of a cabin, work shed, outhouse and cold storage building.

Recent Activity

The proposed plan of operation was updated in the spring of 2011; in order to remove the references to work that had already been completed in the late 80's and early 90's. It is estimated that less than 1 yard of material has been moved in the last ten years. In 2012 the gate was broken and an unauthorized dredge site was conducted without the claimant's knowledge.

Proposed Plan of Operations⁽¹⁾

The miner is proposing to continue placer mining at along McWillis Gulch using the existing ponds, roads and structures. Two sites have been selected for further testing on the south side of the creek and south of the previous work. The main process will be done at the existing pond site east of the creek and additional process with a highbanker will be done at the end of the road (ponds were non-existent during inspection). The miner will maintain an undisturbed 30 foot buffer between the creek and the activity mining site.

Processing water is obtained via a pipe which extends from a cement dam on McWillis Gulch Creek.

Equipment to be operated on the claims includes a backhoe, small cat, 5yd dump truck, tormal and wash plant, highbanker, 4 wheel drive pickups, ATV's and hand tools. A small shed on the site well be used for storage and the cabin will be used for sleeping quarters when mining. Petroleum products used to operate machinery will be kept in the bed of a pickup in approved container and stored out of the flood plain. The miner will also operate a small suction dredge under the terms and conditions of a State dredging permit from July 15 to August 15.



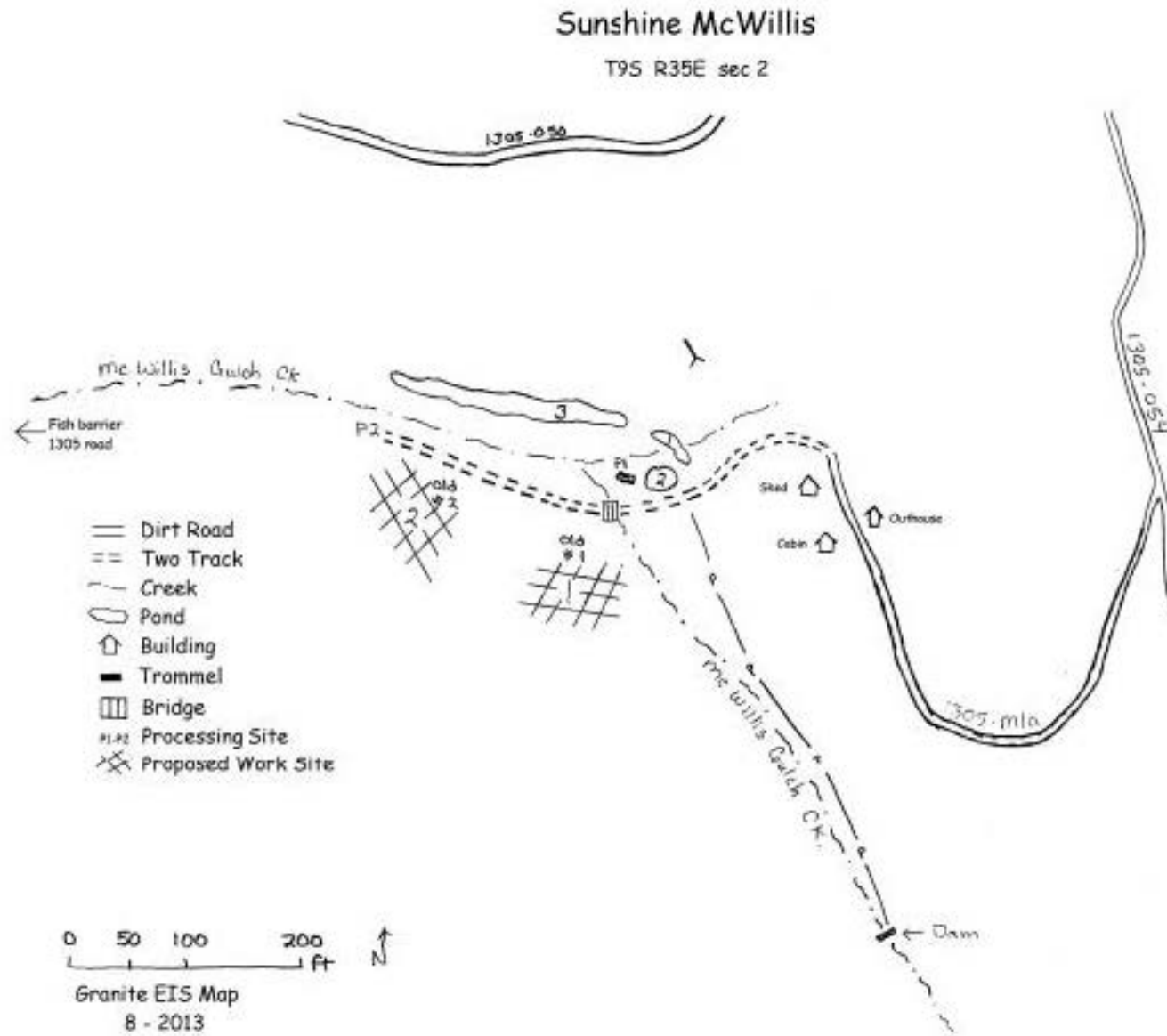
Site 1

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation. Once mining is has been completed equipment and structures will be removed from the site.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. The work area is estimated at about ½ acre and the holes are 50x100ft (estimated 12ft deep) so it would take 4 holes to excavate the site. As not all of the dirt in a hole is processed, (surface and waste rock is set

aside) half of the dirt in the hole would easily give the miner the 1000 cubic yards they plan to process each year. Based on 1 hole a year, 1 year for start-up and 1 year for site re-hab, the mining could easily be completed in 6 years.

No additional mitigation measures were identified by the miner in the Plan. ⁽¹⁾



TETRA ALPHA MILL AND LODE

Claim Description

The Tetra Alpha Mill and lode plan consist of several lode & placer claims.

The mill site is located at the junction of Boulder Creek and Last Chance Gulch. Access is by Forest system roads 7355-xxx and is gated by the miner. The legal description for the mill site is T.8S, R35½ E, Section 34 of the WM

The lode site is located on the ridge above the headwaters of Boulder Creek. Access if by Forest System road 7355-020 and miner constructed temporary roads. The legal description for the lode site is T.8S, R35½ E, Section 25 of the WM



Mill Site

Existing Condition

The access road to the mill site is gated. The road runs along Granite creek before turning up Boulder creek and crosses the pipe line that carries last Chance creek at the existing mill site. This is the same road that is also used to access the placer site. The sheds, equipment, and settling ponds are present at the mill site and have been in place, but un-used for the last 10 years.

The lode site is located above the 7300-020 road and the top soil has been excavated but the portal for the adit has not been started.

Recent Activity

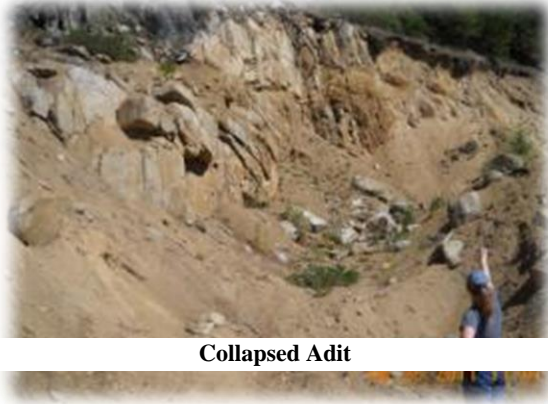
Over the last 10 year the family has been reorganizing and refurbishing the equipment after taking over the operations from their father. While the district did issue a Notice of Intent to work on the adit and placer site, the only activity has been the yearly assessment and maintenance work that is done during vacations and holidays. .

Proposed Plan of Operations⁽¹⁾

The miner is proposing to continue to run the mill by using the materials from the lode operations. The plan is to re-open/expose the vein in the adit located above the road. A test run consisting of 10 yards will be brought to the mill for processing. The plant will be set up to crush 10-20 Tons per day (TPD). During the test run the existing settling ponds will be allowed to fill with sediment and then a supplement will need to be filled before the operations can continue. There is no creek within a ¼ mile of the lodes site, but the miner will maintain an undisturbed 50 foot buffer between boulder creek and the activity mill site, and designated a 25 foot buffer between the work area the bog around Last Change Gulch pond.

Wash water for the mill will be pulled from the reservoir on Last Chance Gulch creek or Boulder Creek ?

Equipment to be used will include an excavator, front end loader, dump truck, and miscellaneous pumps, compressors and other mining related equipment. The mill, sheds and settling ponds are currently existing on site.



Collapsed Adit

For the lode portion of the operation, all fueling associated with the mining will be contained and hauled in 55 gallon drums. For the milling portion of the operation, petroleum products will be stored at least 100 ft from water and in a lined containment vault and will be placed in approved containers. All equipment will be checked daily for leaks and fueling will be done at least 50 feet from water.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

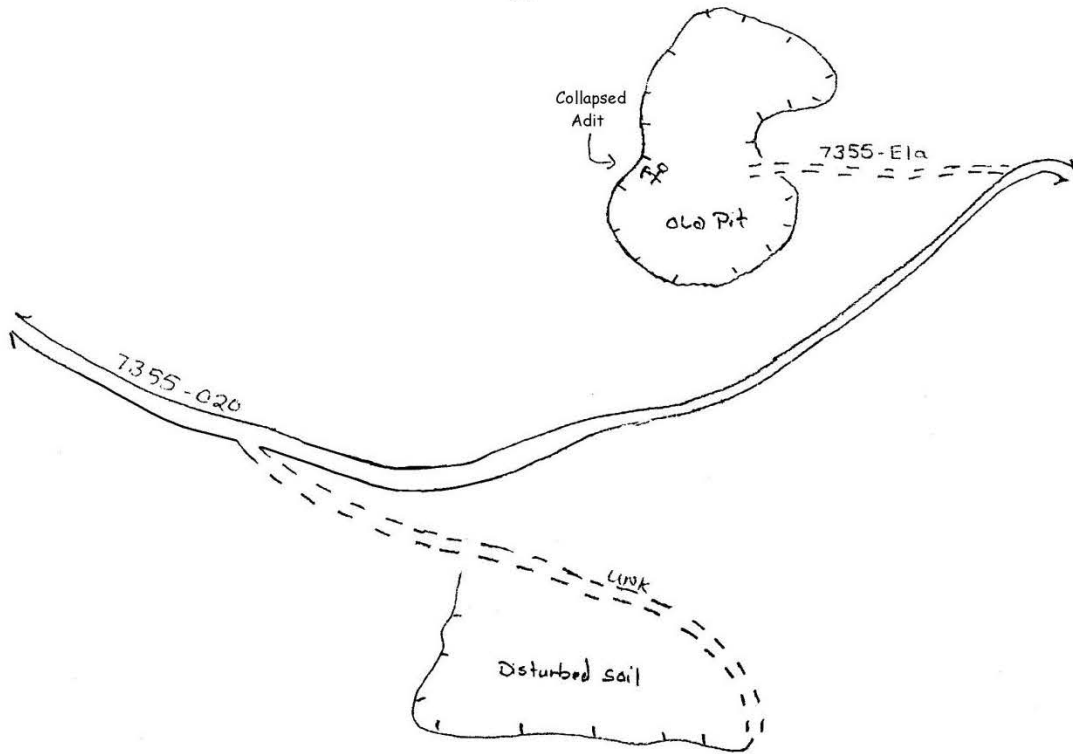
This proposal is for an intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks- 120 days) for the next 10 years to complete the project. It is anticipated that around 30 cubic yards of waste rock will be removed from the lode site in order to get the proposed max of 10 yards for processing. Processing this material is expected to fill the existing settling ponds due to their small size and at a process rate of 10-20 tons per day this operation could easily be completed in on year.

Mitigation Measures identified by the miner in the Plan ⁽¹⁾

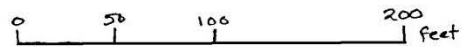
- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).

Tetra Alpha Lode

T 8 S R 35½ E Sec 25



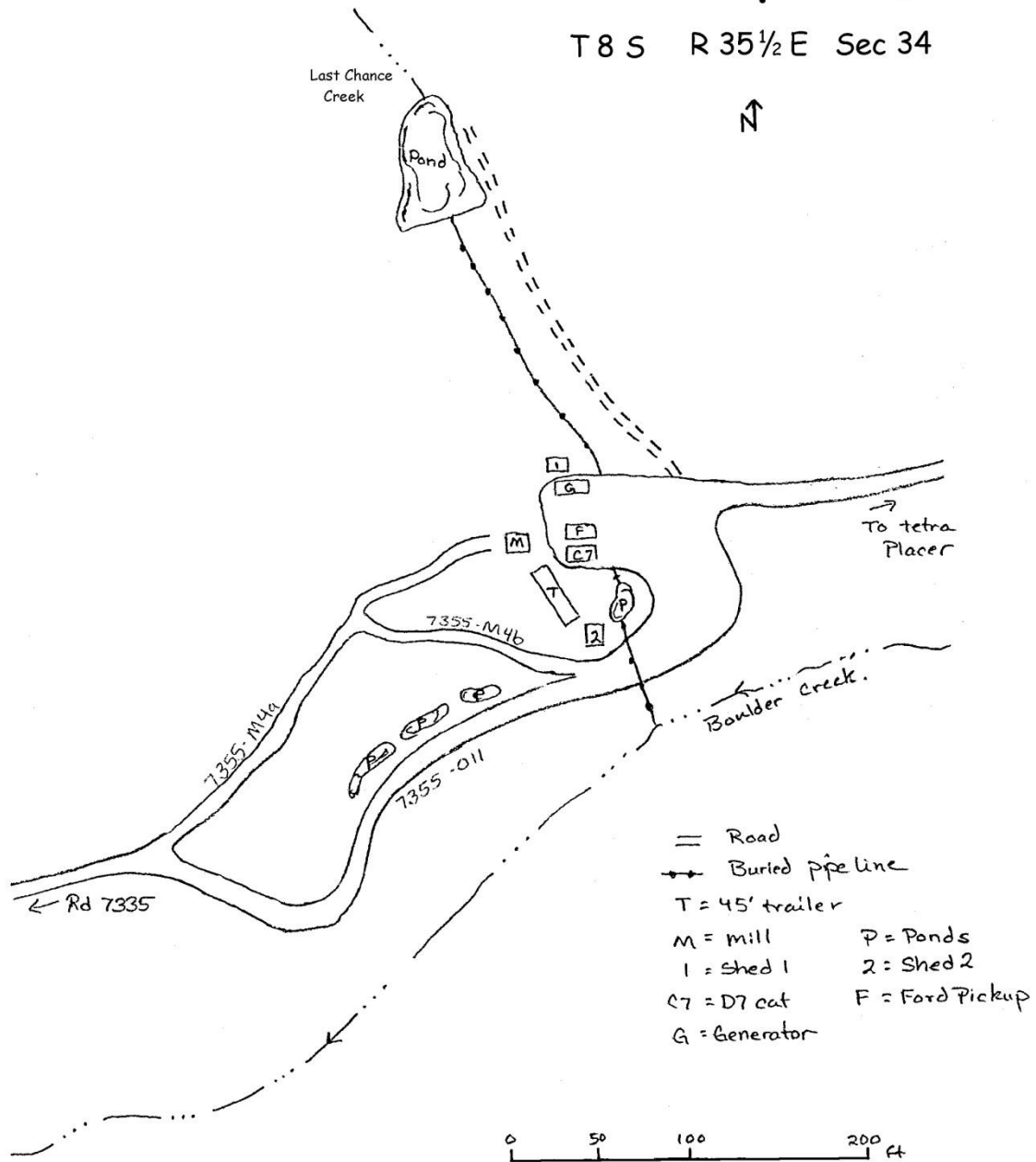
- == Dirt Road
- == Mining Road
- ⊗ Collapsed Adit (proposed work site)



Granite EIS Map
08 - 11 - 2014

Tetra Alpha Mill

T 8 S R 35½ E Sec 34



Granite EIS Map
08 - 11 - 2014

TETRA ALPHA PLACER

Claim Description

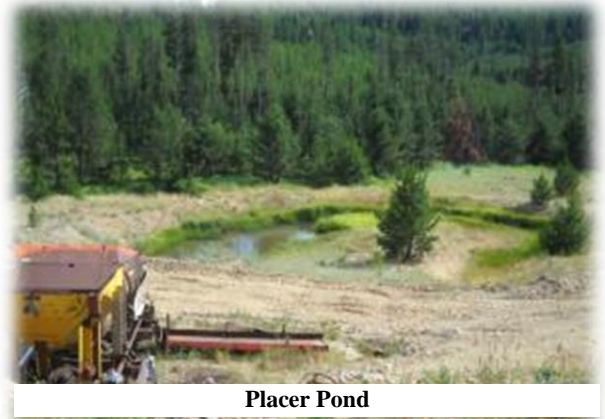
The Tetra Alpha placer plan consist of several placer claim located along Boulder Creek just upstream and west of it confluence with Granite Creek. Access is by Forest system roads 7355-011 and is gated by the miner. The legal location is T.8S, R35½ E, Section 34 of the WM.

Existing Condition

The north side of Boulder Creek was mined in the mid 1900's and has been reclaimed. The south side of the valley had some testing that was done, but the previous logging or other clearing has left the area covered in overstocked 20 foot tall lodge pole pine.

The access road into the claim is gated by the claimant and runs along Granite creek before turning up Boulder Creek in to the Mill area. At the Mill site the road crosses the pipe line (Last Chance Creek) and continues along the north side of Boulder Creek to the placer site.

There is a small shed and various pieces of large mining equipment scattered around the pond (main processing site).



Placer Pond

Recent Activity

Over the last 10 year the family has been reorganizing and refurbishing the equipment after taking over the operations from their father. While the district did issue a Notice of Intent to work on the adit and placer site, the only activity has been the yearly assessment and maintenance work that is done during vacations and holidays.

Plan of Operations⁽¹⁾

The miner plans to continue previous placer mining operations on the south side of Boulder Creek. The proposed excavation area is approximately 100 feet in width, extends from the mill site east past the placer processing site and is estimated to be approximately 8 acres in size. The plan is to start testing on the south side of Boulder creek using the 2 proposed and 1 existing ford to haul the material back to the existing processing site and pond on the north side of the creek. The south fork of Boulder creek and the wet meadow areas will be avoided by leaving a miner designated 25-foot buffer between the average high water mark and mining excavations. If values are found then mining will begin at ½ acre at a time and test holes will be enlarged to 200' x 100' x 30' deep. The miner will maintain an undisturbed 25 foot buffer between the creek/meadow and the activity mining site.

Wash water for the trommel and wash plant will pulled from the off channel pond and will be recycled on site.

Equipment to be used will include an excavator, front end loader, dump truck, and miscellaneous pumps, compressors and other mining related equipment.

Any petroleum products used will be stored in a lined vault at least 100 feet from any creeks or bogs as designated by the Forest Service. Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

This proposal is for a mid-scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project and plans to process 100 yards per day during the summer. Approximately 100 yards are planned to be processed each day and not more than 1 acre per year disturbed per year. By using this production rate, it is estimated that 100 cubic yards per acre would be processed. With an estimated 8 acres to mine, this can be done in 10 years if the work is done full time during the summer. Fire season delays, lack of water and equipment problems, could easily push this time line out for another 2-3 years.



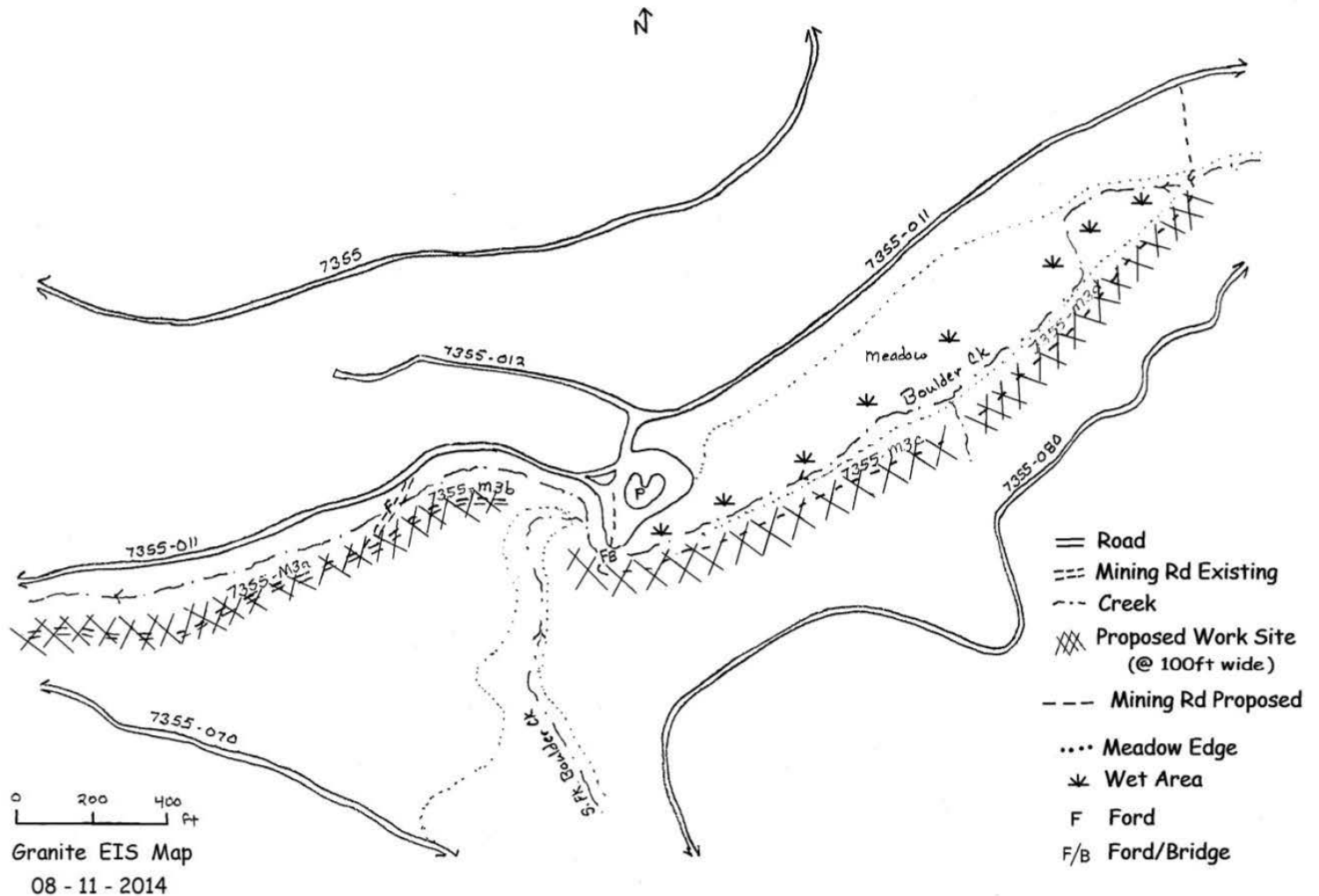
Trommel

Mitigation Measures identified by the miner in the Plan ⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).

Tertra Alpha Placer

T8S R35½E Sec 34+35



TROY D

Claim Description

The Troy D plan consists of only one placer claim. It is located about 1½ miles east of the town of Granite and between the paved County Road 24 (which provides access) and Granite Creek. The legal description for the claim is T.9S, R.35E, Section 1, and T.9S, R.35 ½ E., Section 4, W.M.



Existing Pond

Existing Condition

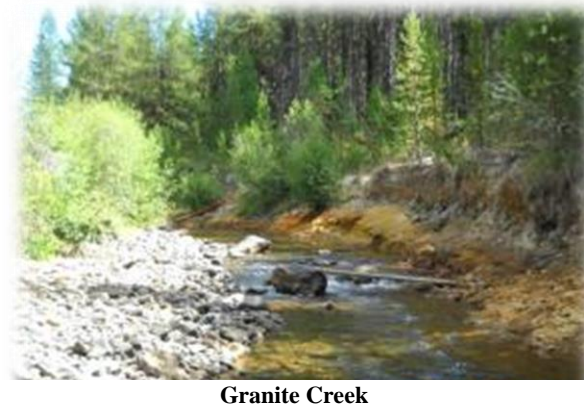
Mining began here in the mid 1800's and the last dredge went through the area in the mid 1900's. The valley floor and stream banks consist of old dredge tailings. The two existing ponds listed in the proposed plan are located just south of the paved road. Ten foot tall lodgepole pines, scrub willow, and native grasses exist on about 50% of the area and along the 8' berm of rocks that separates the mining area from Granite Creek. A portion of the claim was used for gravel storage during reconstruction of Forest System Road 13 and is still a flat gravel area suitable for parking.

Recent Activity

The claimant had an NOI to do some mining on the site in 2012 and 2011 but nothing was done. Equipment currently on site include 2-45ft semi-trailers and a dozer. The two semi-trailers have been used to filter the gold and other locatable minerals out of the water.

Proposed Plan of Operations⁽¹⁾

The miner would like to continue with placer operations on the 10 acre area on the north side of Granite Creek. They would also like to set up a year around water filter operation on the claims mining ponds. A wash plant will be placed in the east end of the claim and the existing ponds will be used to store and re-circulate water. Test holes will be excavated to bedrock (@ 10') and should they prove productive; mining will begin throughout the claim. An undisturbed buffer of at least 25 feet will be maintained by the miner between the mining activity and Granite Creek. It is estimated that up to 50 cubic yards of material will be processed daily. Black sand concentrates will be collected and shipped off site for processing.



Granite Creek

Water from the existing processing pond will be filtered through the carbon columns and electroplated in the semi-trailers. The power line will be brought in (@ 600') to run the filtration system and replace the generator.

Equipment operated on the claim will include a backhoe or excavator, small cat, 5 yard dump truck, washing plant, trommel, sluices, generator, 1 filter trailer, pumps pickup truck, and hand tools and a self-contained RV trailer for sleeping.

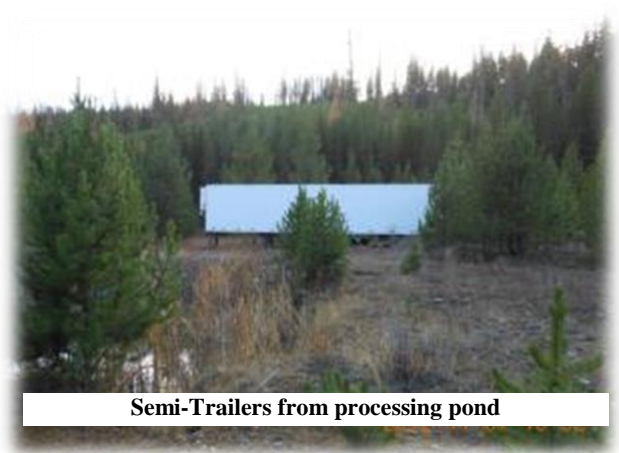
Petroleum products used to operate machinery will be

kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding and fertilization will be done as needed and topsoil will be stockpiled for use in final reclamation.

This proposal is for a small scale, intermittent, family based mining operation. The miner plans to placer mine from June through October of each year (20weeks -120 days) for the next 10 years. A ¼ acre mining sites would be 100x 100 ft. As typically only the ground near bed rock is processed, the bottom yard of soil would give 370 cubic yards to process. At 50 cubic yards per day it would take 7 days to process one ¼ acres or 4 years to completely mine the whole area. The limited availability of water and seasonal fire restrictions may increase the production time.

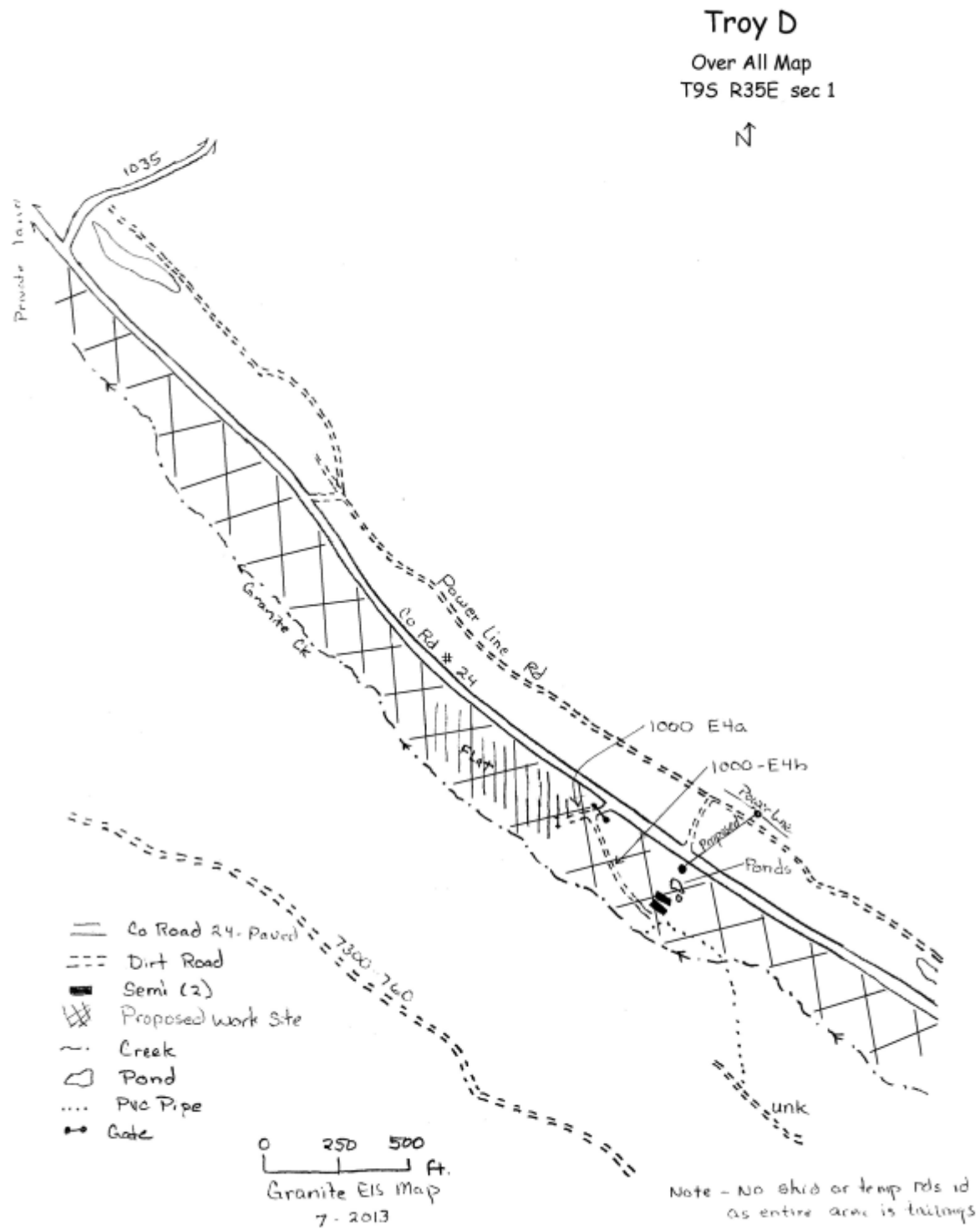
The water filter operation (in the semi-trailers) is proposing to work year around and the operation plans to continue for 10 years.

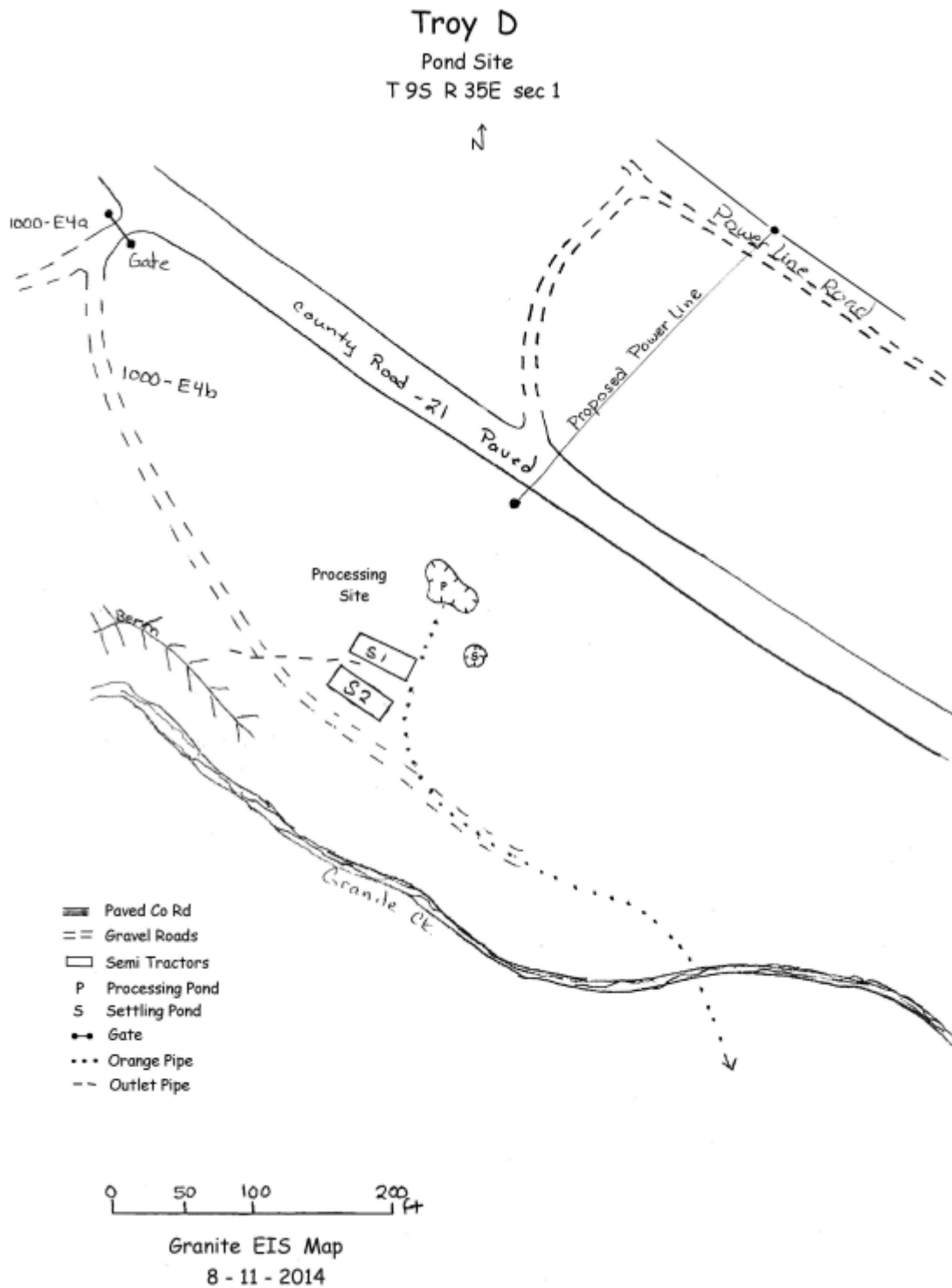


Semi-Trailers from processing pond

Mitigation Measures identified by the miner in the Plan⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and development of Alternative 3).





Yellow Gold

Claim Description

The Yellow Gold plan consists of only one placer claim. It is located along Last Chance Gulch Creek, approximately one mile north of its confluence with Boulder Creek. Access is by Forest System road 7355-020. The legal description for the claim is T.08 S., R.35½ E., Section 27 & 34, W.M.



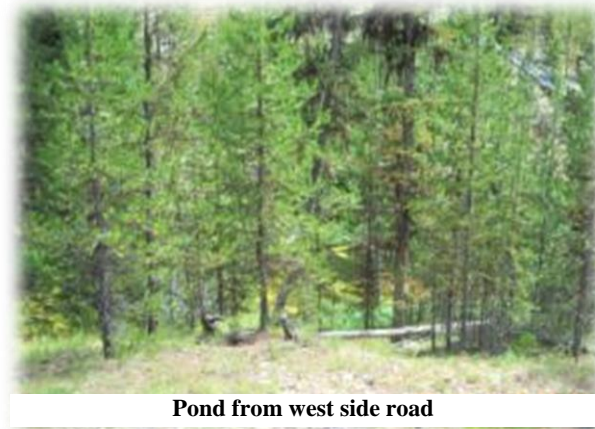
Earth Dam on Last Chance Gulch

Existing Condition

Historically the Yellow Gold claim was hydraulically placer mined. Old tailings and several earthen dams still exist along Last Chance Gulch Creek. The area is covered with timber and lot of grass and shrubs exist along the creek. A seldom used dispersed campsite known as Bear Camp is located on the main road at the north end of the claim and shows no sign of development or an outhouse. Dirt berms exist on the 025, 055 and 050. The 055 is grown in with 20ft tall lodgepole.

Recent Activity

There was a previously approved plan for this operation which was extended until 2012. According to inspections, there has been no mining activity recorded on this claim in the last 10 years.



Pond from west side road

Proposed Plan of Operations⁽¹⁾

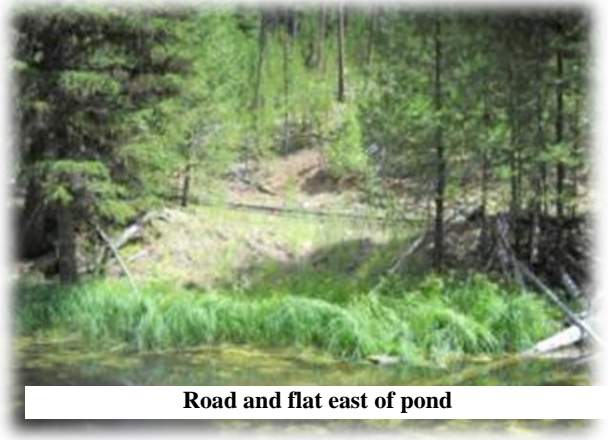
The miner would like to continue placer mining along Last Chance Gulch Creek. The proposal is to provide mining opportunities for small groups. A backhoe will be used to open a hole (50' x 30' x 12' deep) on each side of the gulch. This will provide two holes at all times for the group to work. Water from the creek (dammed reservoir) will be used to fill the ponds and recycled to process the placer materials. A 25 foot stream buffer will be maintained along both side of the creek.

Equipment to be operated on the claims includes a backhoe, small cat, 5 yard dump truck, washing plant, trommel, sluices, highbankers, pumps pickup truck, and hand tools and self-contained RV trailer. Miners will camp near Bear Camp and a portable outhouse may be brought in.

Petroleum products used to operate machinery will be kept in the bed of a pickup in approved containers.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding will be done as needed and topsoil will be stockpiled for use in final reclamation. The miner will maintain waterbars and spot rock the existing access roads. Final reclamation will include closing the 025,026 and 055 road at Bear camp with a dirt berm and ponds will be left in place for wildlife or future mining.

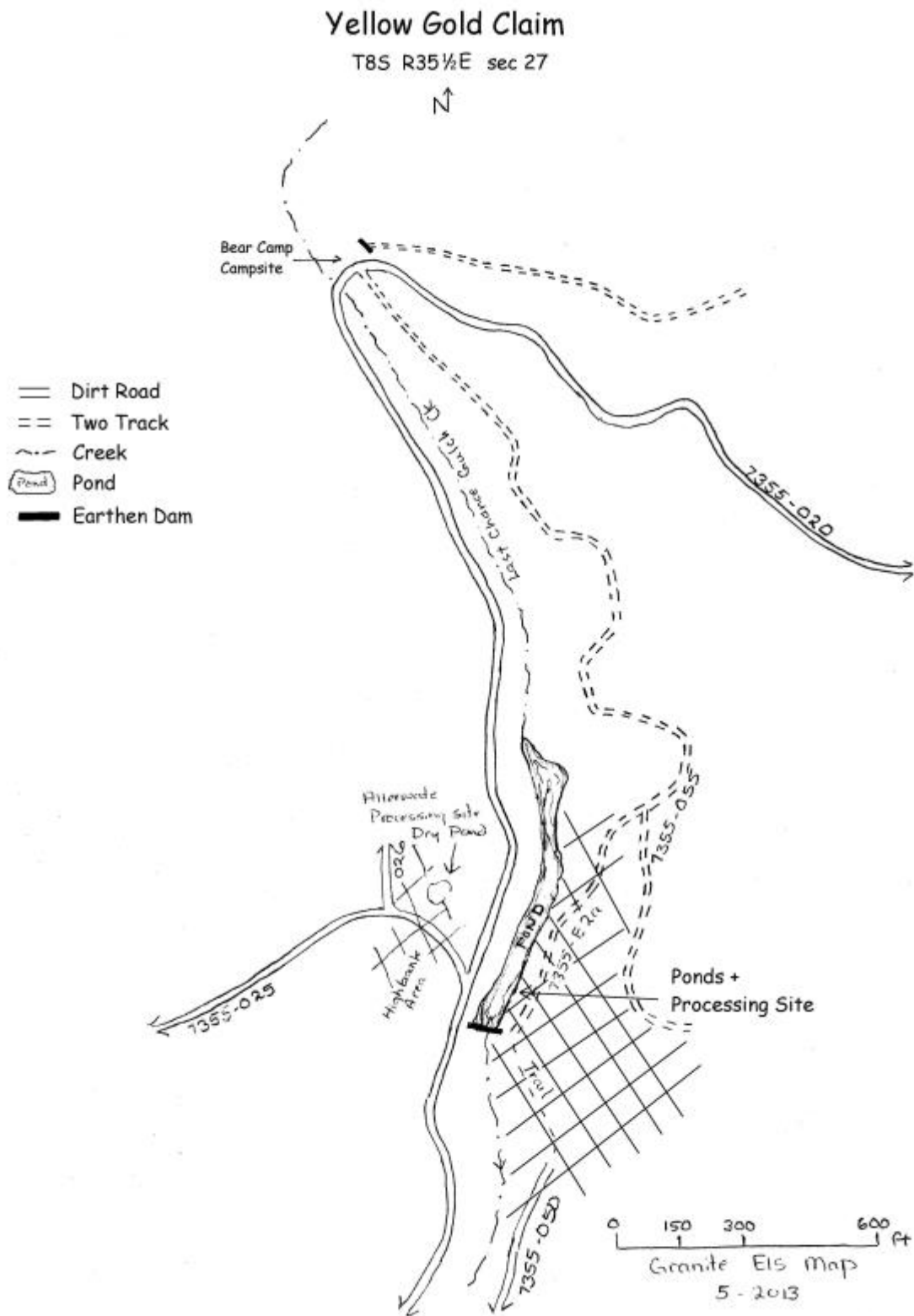
This proposal is for a small scale, intermittent, group based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. Based on the size of the holes, only having 2 holes open each year, and the intermittent nature of the proposed operation, it is estimated that it could take considerably more than 10 years to complete this operation. Based on the given hole size, it is estimated that the miner would have to work 16 holes per year in order to completely mine the estimated 10 acres.



Road and flat east of pond

Mitigation Measures identified by the miner in the Plan⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).



Yellow Jacket

Claim Description

The Yellow Jacket plan consists of placer mining two lode claims. These are located in Orofino Gulch approximately 1½ mile east of its confluence with Olive Creek. Access is through by a private road on the adjacent private land of the claim owner. The legal description for the claim is T.09 S., R.35 E., Section 27&34, W.M.

Existing Condition

The Yellow Jacket claim was hydraulically mined during the early 1900's. Most likely about the time the adjacent Orofino Adit was worked and patented. The side drainages as well as Orofino Gulch Creek itself are made up of those mine tailings. The Lodge pole (30' tall) and occasionally larger have grown in through the rocks. Some ground vegetation is located through-out the old tailings but it is sparse.



Previously Mined Tailings

Recent Mining Activity

According to the inspections, the only activity in the last 10 years was the removal of the cabin to private land, and improvements to a spring (water source for the cabin). Recent inspections have shown no signs of recent mining activities.

Proposed Plan of Operations⁽¹⁾

The miner has proposed to placer mine within a 10 acre area along the South Fork of Orofino Gulch. Phase one would use mechanical equipment to dig 30'x50'x8' deep holes. Should economical values be found then phase two mining will begin mining (excavating) ¼ acres (100'x100') parcels at a time. Short segments of temporary roads will be created by equipment driving from the excavation site to the existing roads. A miner designated 20 ft buffer consisting of vegetation and a tailings berm will be maintained between the creek and the mining operations.

Processing will take place on private land using the water from the patented Orofino adit and the water will be recycled in the existing private ponds. No chemical will be used in this process.

Equipment to be operated on the claims includes a backhoe, small cat, one-yard loader, air compressor, pump, 5 yard dump truck, 5 yard per hour trommel, a pickup truck, gold spinner/ wheel and hand tools. The existing storage shed will be used to store equipment and a temporary trap structure may be placed over the excavation.

Petroleum products will be stored on private land.

The miner will also operate a small suction dredge under the terms and conditions of a State dredging permit from July 15 to August 15.

Reclamation will be done on a continuing basis and the site stabilized annually before close out. Grass seeding will be done as needed and topsoil will be stockpiled for use in final reclamation.



Cabin on Private land (Forest Service behind)

Road maintenance will be accomplished annually on the one mile of the private road needed to access the claim. For final reclamation, access roads/trails will be water barred and closed. Mined areas will be recontoured and seeded. The domestic pipeline will be removed and all machinery, debris or structures related to this operation will be removed.

This proposal is for a small scale, intermittent, family based mining operation. The miner has asked to work from June through October of each year (20weeks-120 days) for the next 10 years to complete the project. This would mean that the miner would need to mine approximately 1 acre a year in order to complete the estimated 7.5 acres in 10 years.

Mitigation Measures identified by the miner in the Plan⁽¹⁾

- Forest Service mitigation measures from previously approved Plans of Operations were attached to this proposal under the Forest Service Evaluation section. (When applicable to the proposal, these were applied to this analysis and the development of Alternative 3).
- Miner will visually check and monitor the gulch near the mining area for increases in sediment caused by this operation.

